### Sport Fisheries in the Northern Cook Inlet Management Area, 2022–2023, to Inform the Alaska Board of Fisheries in 2024

by
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and
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February 2024

Alaska Department of Fish and Game

**Divisions of Sport Fish and Commercial Fisheries** 



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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative		all standard mathematical	
deciliter	dL	Code	AAC	signs, symbols and	
iiran	g	all commonly accepted		abbreviations	
hectare	ha	abbreviations	e.g., Mr., Mrs.,	alternate hypothesis	$H_A$
kilogram	kg		AM, PM, etc.	base of natural logarithm	e
kilometer	km	all commonly accepted		catch per unit effort	CPUE
liter	L	professional titles	e.g., Dr., Ph.D.,	coefficient of variation	CV
meter	m		R.N., etc.	common test statistics	$(F, t, \chi^2, etc.)$
milliliter	mL	at	@	confidence interval	CI
millimeter	mm	compass directions:		correlation coefficient	
		east	E	(multiple)	R
Weights and measures (English)		north	N	correlation coefficient	
cubic feet per second	ft <sup>3</sup> /s	south	S	(simple)	r
foot	ft	west	W	covariance	cov
gallon	gal	copyright	©	degree (angular)	0
inch	in	corporate suffixes:		degrees of freedom	df
mile	mi	Company	Co.	expected value	E
nautical mile	nmi	Corporation	Corp.	greater than	>
ounce	oz	Incorporated	Inc.	greater than or equal to	≥
pound	lb	Limited	Ltd.	harvest per unit effort	- HPUE
quart	qt	District of Columbia	D.C.	less than	<
yard	yd	et alii (and others)	et al.	less than or equal to	<b>≤</b>
y 4.2. U	Ju	et cetera (and so forth)	etc.	logarithm (natural)	_ ln
Time and temperature		exempli gratia		logarithm (base 10)	log
day	d	(for example)	e.g.	logarithm (specify base)	log <sub>2</sub> etc.
degrees Celsius	°C	Federal Information	S	minute (angular)	1082,000
degrees Fahrenheit	°F	Code	FIC	not significant	NS
degrees kelvin	K	id est (that is)	i.e.	null hypothesis	H <sub>O</sub>
hour	h	latitude or longitude	lat or long	percent	%
minute	min	monetary symbols	8	probability	P
second	S	(U.S.)	\$, ¢	probability of a type I error	•
second	5	months (tables and	***	(rejection of the null	
Physics and chemistry		figures): first three		hypothesis when true)	α
all atomic symbols		letters	Jan,,Dec	probability of a type II error	u.
alternating current	AC	registered trademark	®	(acceptance of the null	
ampere	A	trademark	TM	hypothesis when false)	β
calorie	cal	United States		second (angular)	"
direct current	DC	(adjective)	U.S.	standard deviation	SD
hertz	Hz	United States of		standard deviation	SE
horsepower	hp	America (noun)	USA	variance	SE
hydrogen ion activity	рH	U.S.C.	United States	population	Var
(negative log of)	Pii		Code	sample	var
parts per million	ppm	U.S. state	use two-letter	sample	, 41
parts per thousand	ppiii ppt,		abbreviations		
parts per tilousand	ррі, ‰		(e.g., AK, WA)		
volts	V				
watts	W				
watts	**				

#### FISHERY MANAGEMENT REPORT NO. 24-08

# SPORT FISHERIES IN THE NORTHERN COOK INLET MANAGEMENT AREA, 2022–2023, TO INFORM THE ALASKA BOARD OF FISHERIES IN 2024

by
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February 2024

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#### **ABSTRACT**

This report provides a detailed summary of the sport, personal use, and subsistence fisheries in the Northern Cook Inlet Management Area (NCIMA) specific to the proposals before the Alaska Board of Fisheries (BOF) at its February 2024 meeting. Estimates of sport fishing effort, harvest, and catch are summarized through 2022. All other information, including relevant stock assessments and management actions, are provided through 2023. Included are organizational, historical, and geographic descriptions of the NCIMA and its management units and programs, a historical overview of each fishery and its management, and the sport fishery performance through 2022 and escapement of each fishery through 2023.

Keywords:

Northern Cook Inlet Management Area, Knik Arm Management Unit, Eastside Susitna Management Unit, Westside Susitna Management Unit, West Cook Inlet Management Unit, sport fisheries overview, stocked lakes, Chinook salmon, *Oncorhynchus tshawytscha*, coho salmon, *Oncorhynchus kisutch*, sockeye salmon, *Oncorhynchus nerka*, rainbow trout, *Oncorhynchus mykiss*, northern pike, *Esox lucius*, personal use fisheries, dip net fisheries, subsistence, educational fisheries, Alaska Board of Fisheries

#### INTRODUCTION

This fisheries management report provides information regarding sport, personal use, and subsistence fisheries in the Northern Cook Inlet Management Area (NCIMA) that will be discussed at the 2024 Upper Cook Inlet Finfish Alaska Board of Fisheries (BOF) meeting. These fisheries are managed by the Alaska Department of Fish and Game (ADF&G), Division of Sport Fish (SF) based out of the Palmer office. This report provides a detailed summary of the sport fisheries within the NCIMA. Included are a description of the management area and programs related to management of area fisheries. Fisheries are described and organized by species and management unit. Recent fisheries performance information includes effort, catch, and harvest in 2022 compared to long-term (2003–2021), 10-year (2012–2021), and 5-year (2017–2021) averages, and where available, escapement information in 2023 is compared to long-term (2004–2022), 10-year (2013–2022), and 5-year (2018–2022) averages. The recent performance also includes any management actions that occurred in 2022 and 2023.

The mission of SF is to protect and improve the state's fishery resources by managing for sustainable yield of wild stocks of sport fish, providing diverse sport fishing opportunities, and providing information to assist the BOF in optimizing social and economic benefits from sport fisheries. To implement these goals, SF has in place a fisheries management process that includes an annual regional review of fisheries status and research needs, development of fisheries stock assessments, a formal operational planning process, and the use of biological and fishing effort data and input from user groups to assess the need for and to develop management plans and regulatory proposals.

SF management and research activities are funded by ADF&G and Federal Aid in Fisheries Restoration funds. ADF&G funds are derived from the sale of state sport fishing licenses. Federal Aid funds are derived from federal taxes on fishing tackle and equipment established by the Federal Aid in Sport Fish Restoration Act (also referred to as the Dingell–Johnson Act or D–J Act). D–J funds are provided to the states at a match of up to 3-to-1 with state funds. Additional funding specified for providing, protecting, and managing access to fish and game is provided through a tax on boat gas and equipment established by the Wallop–Breaux (W–B) Act. Other peripheral funding sources may include contracts with various government agencies and the private sector, or, in a few cases, State of Alaska general funds (GF).

This area management report for the NCIMA and its fisheries is organized into sections including a management area overview and the major fisheries addressed by the 2024 Upper Cook Inlet Finfish Alaska Board of Fisheries (BOF) meeting. The overview contains a description of the management area; a list of management plans relevant to the BOF meeting; and a summary of effort, harvest, and catch. Each major fishery section includes a description, management objectives, and fisheries performance and management actions taken during the 2022–2023 report period.

#### SECTION I: MANAGEMENT AREA OVERVIEW

#### MANAGEMENT AREA DESCRIPTION

The Northern Cook Inlet sport fish management area (NCIMA; Figure 1) includes all freshwater drainages and adjacent marine waters of Upper Cook Inlet (UCI) between the southern tip of Chisik Island and the Eklutna River, excluding the upper Susitna River drainage upstream of the Oshetna River confluence. The management area encompasses approximately 30,000 square miles and is dominated by the Susitna River drainage, which originates in glaciers of the Alaska and Talkeetna Mountain ranges and flows south about 200 miles to Cook Inlet near Anchorage. Most sport fisheries in the NCIMA are easily accessible by road or jet boat, except remote West Cook Inlet waters, which are accessible only by boat or aircraft.

The NCIMA is divided into 4 major units (Figure 1) for management and harvest reporting:

- 1) The Knik Arm Management Unit (KAMU; Figure 2) includes all waters bounded on the north by Willow Creek (not including Willow Creek); on the west by a north-south line running one-half mile east of the Susitna River; on the south by Cook Inlet, Knik Arm, and the Eklutna River (not including the Eklutna River); and on the east by the upper Susitna River drainage upstream of its confluence with the Oshetna River. All adjacent marine waters of Cook Inlet are included.
- 2) The Eastside Susitna Management Unit (ESMU; Figure 3) includes all drainages of the upper Susitna River upstream of the confluence with the Chulitna River to and including the Oshetna River drainage; all eastside drainages of the Chulitna River; and all eastside drainages of the Susitna River downstream of its confluence with the Chulitna River to and including Willow Creek to the south. This management unit has no marine waters.
- 3) The Westside Susitna Management Unit (WSMU; Figure 3) includes all westside drainages of the Chulitna River, all westside drainages of the Susitna River downstream of its confluence with the Chulitna River, and the eastside drainages of the Susitna River within one-half mile of the Susitna River downstream of Willow Creek. This management unit has no marine waters.
- 4) West Cook Inlet Management Unit (WCIMU; Figure 4) includes all freshwater drainages entering Cook Inlet between (and excluding) the Susitna River and the latitude of the southern tip of Chisik Island, and all adjacent marine waters of Cook Inlet.

In terms of political geography, a major portion of this management area is very similar to the boundaries of the Matanuska–Susitna Borough, but the WCIMU extends into the Kenai Peninsula Borough. The State of Alaska is the principal land manager in the NCIMA. Other significant land managers include the Matanuska–Susitna Borough, the Kenai Peninsula Borough, various Native corporations and villages, and the federal government.

# ESTABLISHED MANAGEMENT PLANS AND POLICIES RELEVANT TO BOF MEETING

The waters of the NCIMA fall within 4 sport fishing regulatory areas: the Knik Arm (same as the KAMU described above for management and harvest reporting), the Susitna River (includes ESMU and WSMU), West Cook Inlet (same as WCIMU), and the Cook Inlet–Salt Water Regulatory area. Regulations governing the sport fisheries of the Knik Arm, the Susitna River, West Cook Inlet, and the Cook Inlet–Salt Water Regulatory areas are established in Chapters 60–62 and 58, respectively, of Title 5 of the Alaska Administrative Code. Regulations pertaining to other Cook Inlet fisheries, including subsistence (Chapter 01), personal use (Chapter 77), and educational permits (Chapter 93), as well as statewide provisions (Chapter 75) and commercial fisheries (Chapter 21), are also contained in Title 5 of the Alaska Administrative Code.

The process of developing fishing regulations appropriate for fisheries in the NCIMA occurs within the established Alaska Board of Fisheries (BOF) process. Public input concerning regulation changes and allocation issues is provided for in this process through various means including submission of proposals, direct testimony to the BOF, and participation in local fish and game advisory committees. Advisory committees have been established throughout Alaska to assist the BOF and the Alaska Board of Game (BOG) in assessing fisheries and wildlife issues and proposed regulations. Active committees meet several times each year. Division of Sport Fish (SF) staff and other Alaska Department of Fish and Game (ADF&G) divisions are often invited to attend the committee meetings. In this way, advisory committee meetings allow for direct public interaction with ADF&G staff involved with resource issues of local concern. Within the NCIMA there are 4 active ADF&G Advisory Committees: Matanuska, Susitna, Tyonek, and Mt. Yenlo (Appendix A1). ADF&G staff also interact frequently with the Anchorage Advisory Committee, whose constituents and concerns affect the NCIMA. Under the current operating schedule, the BOF meets on a 3-year cycle. Proposals regarding finfish species within the NCIMA were addressed most recently in 2020. The next BOF meeting to address NCIMA issues is scheduled for February 2024. Appendices B1-B5 provide summarized histories of BOF regulatory actions for select fisheries.

Upper Cook Inlet fisheries have been the focus of intense allocation battles for many years. These conflicts have led the BOF to establish numerous management plans and policies to guide the area's fisheries. These plans attempt to ensure sustained yield of the area's fish resources, as well as establishing allocations, management actions, and guidelines. There are presently 15 management plans or policies that the BOF has adopted that impact NCIMA fisheries (Appendix C1).

#### SPORT FISHING EFFORT, HARVEST, AND CATCH

#### **Statewide Harvest Survey**

Beginning in 1977, sport fishing effort in the NCIMA has been estimated by ADF&G using a mail survey called the Statewide Harvest Survey (SWHS; Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996; Alaska Sport Fishing Survey database [Internet]. 1996—present available from <a href="http://www.adfg.alaska.gov/sf/sportfishingsurvey/">http://www.adfg.alaska.gov/sf/sportfishingsurvey/</a>). The SWHS estimates the number of angler-days of sport fishing effort expended by anglers fishing Alaskan waters as well as harvest and, beginning in 1990, catch (number harvested plus number released) of important sport fish species. The SWHS is designed to provide estimates of effort, harvest, and catch by general location but is

not designed to provide estimates of effort directed toward a single species at a location. Unless noted otherwise, all estimates of effort, harvest, and catch that follow are from the SWHS<sup>1</sup>.

The NCIMA is composed of 2 complete SWHS reporting areas and a portion of a third (Jennings et al. 2015). These areas are as follows: (1) the Knik Arm Drainage Area reporting unit (Area K), (2) the West Cook Inlet reporting unit (Area N), and (3) the Susitna River Drainage reporting unit (Area M). Area K covers the KAMU, and Area N includes the WCIMU but also includes fresh and marine waters between the southern tip of Chisik Island and Cape Douglas, an area outside of the NCIMA. Area M includes the ESMU and WSMU but also includes several rivers and many lakes north of the Oshetna River boundary of the NCIMA. Fisheries outside of the NCIMA are not included in this report.

SWHS data for 2022 are presented in this report, and data for prior years are divided into 2 periods for this section: (1) long-term average for 2003–2021 and (2) the 5-year average for 2017–2021. Note that historical data from 1977 to 2002 are published in Oslund et al. (2020).

#### **Effort**

From 2003 to 2021, an average of 219,283 angler-days were expended by anglers fishing NCIMA waters (Table 1). On average, effort expended by anglers fishing NCIMA waters from 2003 through 2021 has represented 15% of the Southcentral Region effort<sup>2</sup> (Region II) and 10% of the statewide angling effort. Angler effort in NCIMA peaked at 311,747 angler-days in 2004 (Figure 5). From 2009 through 2012, angler-effort fell abruptly and has generally stayed low to present, mirroring years when major Chinook salmon (*Oncorhynchus tshawytscha*) fisheries were either closed or severely restricted. Total effort for NCIMA averaged 157,329 angler-days from 2017 to 2021 (Table 1). The Kenai Peninsula sport fish management area is currently the only management area in Alaska that receives greater use by sport anglers than the UCIMA (SWHS database).

During 2022, anglers spent an estimated 129,972 angler-days fishing NCIMA waters, a new record low of measured angler-days. Effort in 2022 represented 11% and 7% of the Southcentral Region and total statewide angling effort, respectively (Table 1).

On average, about 43% of the effort for 2003–2021 from the NCIMA has occurred in the Knik Arm Management Unit (KAMU; Table 1). From 2003 to 2021, KAMU waters supported an average of 93,205 angler-days of fishing effort. Nearly all the effort over this period was expended in fresh water (Table 2). The Little Susitna River is a heavily fished stream in the KAMU, averaging 19,753 angler-days of effort for the period 2003–2021 (Table 2, Figure 6). Effort on Knik River tributaries including Jim Creek has dropped recently; the most recent 5-year average (2017–2021) is now 5,605 angler-days, and 6,519 angler-days of effort were expended in 2022, which is nearly equal to the effort on the Little Susitna River in 2022 (Table 2). A terminal Chinook salmon fishery at the Eklutna Tailrace, begun in 2002, and a coho salmon fishery, begun in 1999, have also contributed to increased effort in the KAMU. During 2022, the KAMU represented 48% of the effort in the NCIMA (Table 1). Other major fisheries occur in the many stocked lakes in the basin (notably in Finger Lake and the Kepler Lake complex) and at various road-accessible streams

The most current SWHS estimates were obtained from <a href="http://www.adfg.alaska.gov/sf/sportfishingsurvey">http://www.adfg.alaska.gov/sf/sportfishingsurvey</a>; published estimates may differ.

ADF&G, Division of Sport Fish, Southcentral Region (i.e., Region II) includes the following management areas: Anchorage, Bristol Bay, Kodiak–Aleutians, Lower Cook Inlet (Kenai), Northern Cook Inlet (Matanuska–Susitna), Prince William Sound, Seward–North Gulf Coast, and Upper Kenai Peninsula.

including Cottonwood and Wasilla Creeks and the Big Lake drainage (Figure 6). A limited saltwater (i.e., marine) fishery also occurs off the mouth of Fish Creek in Knik Arm (Figure 6).

Anglers fishing the Eastside Susitna Management Unit (ESMU) from 2003 through 2021 expended an average of 67,258 angler-days of effort (Table 1), representing 31% of the average sport effort from all NCIMA waters. A total of 39,169 angler-days were spent in this area during 2022, a new record low (Table 3). Major fisheries occur in Willow Creek, Montana Creek, Talkeetna River, and Sheep Creek (Figure 7). These fisheries were closed for Chinook salmon in 2022, contributing to the lack of effort from sport fishing.

Anglers fishing the Westside Susitna Management Unit (WSMU) from 2003 through 2021 expended an average of 45,291 angler-days of effort (Table 1). This effort has represented 20% of the NCIMA effort on average during this period. There was a total of 19,875 angler-days of effort during 2022, the lowest on record (Table 1). Alexander Creek, once a major Chinook salmon fishery, has been closed to all Chinook salmon fishing as of 2008. The Deshka River and Lake Creek are the biggest contributors to sport fishing effort with 15,339 days and 12,245 days of the total WSMU effort, respectively (2003–2021 averages; Table 4). Other moderate to minor fisheries in WSMU with less fishing effort occur in the Yentna River drainage, including the Talachulitna River (Figure 8). Small amounts of angler effort occur in numerous remote lakes in the area.

From 2003 through 2021, anglers fishing West Cook Inlet Management Unit (WCIMU) waters expended an average effort of 13,529 angler-days of effort, representing 6% of the NCIMA effort on average (Table 1). A record total of 20,459 angler-days occurred during 2005 (Table 1), the result of increased fishing effort at Big River Lakes. WCIMU effort in 2022 of 8,816 angler-days was below the 2017–2021 average of 10,335 angler-days (Table 1). The sockeye salmon (*O. nerka*) fishery at Big River Lakes (Big River drainage, including Wolverine Creek) has developed during the last decade into one of the largest fisheries in WCIMU (Table 5); other major fisheries include the Kustatan, Chuitna, and Theodore Rivers (Figure 9).

#### Harvest

From 2003 through 2021, an average of 124,527 fish were caught and kept (i.e., harvested) by anglers fishing NCIMA waters (Table 6). In 2022, 66,494 fish were harvested in the NCIMA, a new historic low (Figure 10) and below the 2017–2021 average of 87,258 fish (Table 6). Coho salmon, sockeye salmon, and rainbow trout (*O. mykiss*) accounted for 45%, 13%, and 10% of the average harvest respectively from 2003 through 2021 (Table 7; Figure 11). In 2022, the Chinook salmon harvest of 253 fish was well below the 2017–2021 average of 1,319 and a new record low due to Chinook salmon restrictions and closures in relation to poor returns (Table 7).

Fish from KAMU accounted for 38% of the number of fish caught and kept (harvested) on average within the NCIMA during 2003–2021 (Table 6). Coho salmon and rainbow trout dominated the harvest (Table 8). The KAMU has various lakes stocked with rainbow trout, providing a popular fishery from the roadside and in early spring before the rivers are ice free.

ESMU and WSMU accounted for 23% and 26% of the NCIMA harvest on average during 2003–2021, respectively (Table 6), with coho salmon, sockeye salmon, Chinook salmon, and pink salmon dominating harvests in the ESMU and coho, Chinook, and sockeye salmon primarily harvested in the WSMU (Tables 9 and 10). The WCIMU accounted for 13% of the NCIMA harvest on average from 2003–2021 (Table 6), with coho and sockeye salmon accounting for the majority of the WCIMU harvest (Table 11).

#### Catch-and-Release

Estimates of the number of fish caught and released by anglers fishing NCIMA waters became available for the first time during 1990 (Mills 1991).

The proportion and type of fish released by anglers varies within and among management units. On average, Arctic grayling, chum salmon (*O. keta*), pink salmon, and Dolly Varden ranked highest in release percentages of angled fish species during 2018–2022 (Table 12). Following these 4 species are Chinook salmon, with release percentages averaging 91%, most likely a result of emergency orders (EOs) issued in 2018–2022. Chinook salmon release percentages were greatest in ESMU and WSMU where fisheries were restricted to catch-and-release only or closed entirely to Chinook salmon during this period, resulting in 100% release (Tables 13 and 14). Release percentages were much smaller in KAMU and WCIMU where these restrictions were not in place (Tables 15 and 16).

#### **Area Fisheries Recent Performance**

Angler effort (angler-day) in the 2022 NCIMA sport fisheries was 129,972, which was the lowest on record and below the 2017–2021 average of 157,329 angler days (Table 1). The associated harvest primarily targeted coho, sockeye, and Chinook salmon, rainbow trout (most harvest is from the KAMU stocked fisheries), and northern pike (Table 7). Chinook salmon restrictions continued to be implemented (catch-and-release fishing and closures), and harvest opportunities were limited to very small fisheries in WCIMU and the stocked Chinook salmon fishery at the Eklutna Tailrace (KAMU). Effort in the NCIMA sport fisheries in 2022 was 7% of the total sport fishing effort in Alaska, which is down from the historical 2003–2021 average of 10% (Table 1).

In the 2022 NCIMA sport fisheries, catch and harvest for most species were below their respective long-term (2003–2021) and 5-year (2017–2021) averages (Table 7). Harvest of Chinook salmon was at a historical low and other salmon species including coho, sockeye, and pink salmon were below their respective 2017–2021 averages (Table 7).

#### **CHINOOK SALMON FISHERIES**

Chinook salmon runs to the NCIMA are made up of many stocks and collectively make up the largest proportion of Cook Inlet drainage stocks. The Susitna River stock is the most numerous in the management area, and the fourth most numerous in Alaska, smaller only than the Yukon, Kuskokwim, and Nushagak River stocks<sup>3</sup>. The collective (all Chinook salmon stocks) annual run has long been assumed to number from 100,000 to 200,000 fish (Delaney and Vincent-Lang *Unpublished*). In 2020, the ADF&G implemented a new model-based approach using multiple sources of data to estimate run size and escapements for 4 Susitna River stocks: the Yentna River, Deshka River, Eastside Susitna River (parks highway streams from Willow to Montana Creeks), and the Talkeetna River (Figure 12). For the past 2 years (2022 and 2023), each of these stocks has experienced a downward trend in abundance. The 2022 escapement estimates were 16,583 for the Yentna River, 5,440 for the Deshka River, 7,654 for the Eastside Susitna River stock, and 4,288 for the Talkeetna River stocks (Table 17). In 2023, the escapement estimates were drastically lower: 8,294 for the Yentna River stock, 3,741 for the Deshka River stock, 4,003 for the Eastside

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Delaney, K., and D. Vincent-Lang. *Unpublished*. Current status and recommendations for the future management of the Chinook salmon stocks of Northern Cook Inlet. A report to the Alaska Board of Fisheries, Anchorage, Alaska, November 1992. Alaska Department of Fish and Game, Division of Sport Fish, Anchorage. Subsequently referred to as Delaney and Vincent-Lang *Unpublished*.

Sustina River stock, and 2,216 for the Talkeetna River stock. Compared to the escapement estimates published for the comprehensive run reconstruction performed on these stocks (Reimer and DeCovich 2020), the escapements in 2023 were the lowest observed since 1979, the first year of the reconstruction. WCIMU Chinook salmon runs were not part of the run reconstruction estimates.

Total harvests of Northern Cook Inlet Chinook salmon for all users varied from about 11,200 to 70,000 fish from 1893 to 1940 (Table 18), averaging about 38,500 fish annually. This harvest appeared to be sustainable, considering it was maintained for over a half century. Harvests increased from 1940 to 1951, averaging 84,500 fish annually, and peaked at 150,010 in 1951. After 1951, harvests declined precipitously until fisheries were closed in 1963 to allow stocks to rebuild (Figure 13). This history suggests that the maximum sustainable harvest range for Northern Cook Inlet Chinook salmon is 38,500–70,000 across most years.

In 1976, Congress passed the Magnuson Fishery Conservation and Management Act. This act, also known as the 200-mile limit law, extended federal fishery management authority into waters within 3 to 200 miles of the United States coast. It phased out foreign fishing fleets and implemented fishery management in offshore waters. Its effects on Cook Inlet Chinook salmon stocks are not fully understood; however, it is likely that the act and its associated fishery management plans increased Chinook salmon runs to Northern Cook Inlet.

Historically, a variety of users including freshwater and saltwater sport, commercial, subsistence, personal use, and educational fisheries have harvested NCIMA Chinook salmon runs. However, harvest strategies for Northern Cook Inlet Chinook salmon have changed substantially since the 1890s. The fishery has slowly evolved from a mixed-stock commercial harvest to a recreationally dominated harvest that targets many discrete stocks<sup>4</sup>.

From 1975 through 1990, sport fisheries targeting NCI Chinook salmon runs were gradually expanded to allow harvest of increasing returns (Figure 13). The *Upper Cook Inlet Salmon Management Plan* (5 AAC 21.363), adopted by the BOF in 1977, guided these expansions. This plan, as it relates to NCI Chinook salmon stocks, originally stipulated that stocks normally moving through Upper Cook Inlet to spawning grounds prior to July 1 are to be managed primarily for recreational uses. Therefore, sport fisheries were expanded and currently constitute the largest harvests. In 1986, the BOF adopted the *Northern District King Salmon Management Plan* (5 AAC 21.366) to allocate a portion of the increasing Northern Cook Inlet Chinook salmon returns to the commercial fishery. This step-down plan allows for a harvest of up to 12,500 Chinook salmon by a commercial setnet fishery in the Northern District during June.

Under these plans, total harvest of Northern Cook Inlet Chinook salmon continued to increase from 1986 to 1993, ranging from about 40,400 to 54,500 fish and averaging about 46,300 fish (calculated from Table 18). Average and peak harvest of NCIMA Chinook salmon in sport fisheries from 1986 to 1993 were about 34,600 and 49,400 fish, respectively (Table 19). Sport harvests decreased substantially to about 16,500 fish in 1995 due in part to fishery closures and restrictions (Appendix B1) placed on sport fisheries following a period of poor escapements observed in the early 1990s. As Chinook salmon stocks rebounded in the mid to late 1990s, fisheries were reopened and some restrictions were lifted. Beginning in 1997, sport harvests

Whitmore, C., D. Sweet, and L. Bartlett. *Unpublished*. Area Management Report for the recreational fisheries of Northern Cook Inlet, 1992. Located at Alaska Department of Fish and Game, Division of Sport Fish, 333 Raspberry Road, Anchorage.

trended upward, peaking at about 33,100 fish in 2000. From 2003 to 2006, harvests were stable, with an average of 28,272 fish harvested. The average total harvest of NCIMA Chinook salmon by all users was about 32,820 fish during the same period (Table 19).

In response to development of a sport-dominated harvest that targeted a multitude of discrete stocks, biological escapement goals (BEGs<sup>5</sup>) were established in 1993 for 18 NCIMA Chinook salmon spawning streams based on long-term escapement survey data. Escapement goals are intended to ensure the long-term sustainability of NCIMA Chinook salmon stocks. The 1993 BEGs were replaced with sustainable escapement goals (SEGs<sup>6</sup>) as new assessment methods were developed<sup>7</sup>. Escapement goals were revised during the February 2020 BOF meeting, based on the *Policy for the Management of Sustainable Salmon Fisheries* and the *Policy for Statewide Salmon Escapement Goals*, and new stock goals were adopted by the BOF during winter 2020. Currently there are 10 SEGs for Chinook salmon in the NCIMA (Table 17).

The primary management objective for NCIMA Chinook salmon is to achieve the established escapement goals. Spawning escapement on up to 31 monitored streams is indexed annually using helicopter surveys or weirs. To provide consistent annual index counts, spawning streams are flown in their entirety from mouth to headwaters (except Little Susitna River) to avoid missing shifts in spawning distribution and in case the survey is not flown during peak spawning. On the Little Susitna River, approximately 40 miles of the lower river is not part of the index count and contains relatively little spawning habitat.

To ensure escapement goals are met, fishery managers may reduce potential harvest by reducing daily and seasonal bag limits, prohibiting bait, and reducing time and areas open to fishing. Streams that consistently fall below escapement goals may be closed to Chinook salmon fishing. On streams with weirs or programs that provide inseason sport harvest information, regulations may be liberalized by emergency order (EO) if harvestable surpluses are projected.

Beginning in 2012 and into 2023, managers began to utilize a strategy that accounted for both the harvest reductions necessary to achieve escapement goals by management area and the public input from stakeholder meetings. Public meetings early in the downturn of production revealed that a full season of fishing opportunity, even though highly restrictive, was preferred over a less restrictive season that could be interrupted by midseason closures. Strategies for managing Chinook salmon during the current period of low production are detailed in the following report sections.

Below-average escapements since 2012 have resulted in preseason and inseason restrictions and closures on the Susitna and Little Susitna River drainages, and 2023 marks the fourth year of Chinook salmon management under 4 stock-based goals set on the Susitna River drainage (Deshka, Yentna, Eastside, and Talkeetna). The preseason forecast for Deshka River Chinook salmon was for a total run 7,243 fish. Given a forecast below the low end of the BEG and that the escapement goal was missed in 2022, the Deshka Chinook salmon fishery started the 2023 season closed as did fisheries within the Talkeetna and Eastside Susitna areas. Catch-and-release fishing was allowed by EO on the Yentna River drainage and on the Little Susitna River because the

An SEG is the level of escapement, indicated by an index or an escapement estimate, that is known to provide for sustained yield over a 5-to-10-year period, used in situations where a BEG cannot be estimated due to the absence of a stock-specific catch estimate.

<sup>&</sup>lt;sup>5</sup> A BEG is the escapement that provides the greatest potential for maximum sustained yield.

Bue, B. G., and J. J. Hasbrouck. *Unpublished*. Escapement goal review of salmon stocks of Upper Cook Inlet. Alaska Department of Fish and Game, Report to the Alaska Board of Fisheries, November 2001 (and February 2002), Anchorage. Hereafter cited in text as "Bue and Hasbrouck *Unpublished*."

optimal escapement goal (OEG) on the Yentna River and the sustainable escapement goal (SEG) on the Little Susitna River were attained in 2022 near the low end of their respective goal ranges.

Overall performance for the Chinook escapements for 2023 in the NCIMA were at a historical low. No escapement goals in the management area were met. See below for recent fishery performances.

#### KNIK ARM MANAGEMENT UNIT CHINOOK SALMON FISHERIES

#### **Fishery Description**

Within the KAMU (Figures 1 and 2), the Little Susitna River is the only stream open to Chinook salmon harvest other than the Eklutna Tailrace terminal fishery (see section below). The Little Susitna River supports a major Chinook salmon fishery as well as the largest coho salmon fishery in the NCIMA. Chinook salmon bound for the Little Susitna River are also harvested in marine sport and commercial fisheries, and subsistence and personal use fisheries.

Chinook salmon return to the Little Susitna River from late May through early July; the run peaks around mid-June. Spawning occurs from the Burma Road area upstream into Hatcher Pass, with most spawning taking place upstream of the Parks Highway bridge. There are few Chinook salmon that use tributaries for spawning. Peak spawning typically occurs during the last week of July.

Angler access to the Little Susitna River occurs at 3 primary locations: (1) intertidal waters of the river, which are accessed by boats crossing Knik Arm from the Port of Anchorage public boat launch; (2) the road-accessible Little Susitna Public Use Facility (Burma Road Access), which includes a launch and campground; and (3) private and public launches near the Parks Highway, which provide access to the upper reaches of the river. The Little Susitna Public Use Facility is the most heavily used access to the river. Powerboats can travel on the Little Susitna River from its mouth to the Parks Highway during periods of moderate to high water levels. However, during low flows, travel is restricted to smaller jet boats between river mile (RM) 28 and the Parks Highway at RM 70.

#### **Fishery Management and Objectives**

The Chinook salmon fishing season for the Little Susitna River is from January 1 through July 13, with fishing permitted from the river's mouth upstream to the Parks Highway, a distance of about 70 miles.

The weir program for the Little Susitna River at the RM 32.5 site provides a tool for inseason management of the fishery during a time of diminished runs. The current weir-based SEG is 2,100–4,300 Chinook salmon (Table 17). The Little Susitna River also has an aerial goal of 700–1,500 fish and is used if the weir count is lost due to floodwaters. The management objective for the Little Susitna River Chinook salmon fishery is to maximize fishing opportunity while ensuring the attainment of the SEG.

The annual objective for the Eklutna Tailrace stocking program is to release 400,000 Chinook smolt, resulting in a return of 4,000 adults and generating 10,000 angler-days of effort<sup>8</sup>. The only

<sup>&</sup>lt;sup>8</sup> ADF&G Statewide Stocking Plan, <a href="http://www.adfg.alaska.gov/index.cfm?adfg=fishingsportstockinghatcheries.stockingplan">http://www.adfg.alaska.gov/index.cfm?adfg=fishingsportstockinghatcheries.stockingplan</a>, accessed December 2023.

other KAMU Chinook salmon stream indexed annually is Moose Creek, a tributary of the Matanuska River, but there is no escapement goal or associated fishery.

#### **Chinook Salmon Fisheries Recent Performance**

The Eklutna Tailrace was the only Knik Arm stream open to the harvest of Chinook salmon by regulation. The Little Susitna weir-based goal (2,100–4,300) was achieved in 2022 with 2,288 Chinook salmon passing the weir by 4 July after the closure of the sport fishery on 20 June due to low weir counts. The count was considered final (Table 20). The use of a video weir at this site has enabled fish to be counted even during periods of high spring runoff when water clarity is poor, as was the case throughout most of the 2022 season. A preseason EO was issued effective 1 May when Chinook salmon sport fishing was restricted to catch-and-release only. In addition, only 1 unbaited, single-hook, artificial lure was allowed in the waters normally open to Chinook salmon fishing in the Little Susitna River. On 20 July, the Little Susitna River was closed to fishing for Chinook salmon by EO.

In 2022, the KAMU streams produced the only sport harvest in the NCIMA of 90 fish (Table 21). The Eklutna Tailrace stocked fishery was the only location in the NCIMA open to harvest in 2022. However, the 2022 Little Susitna Chinook salmon harvest of 90 fish was the lowest on record, down from 576 in 2021 (Table 21).

Catch rates reported by anglers at the Eklutna Tailrace were fair through most of the 2022 Chinook salmon fishing season. ADF&G staff observations of fishing at Eklutna Tailrace substantiated the angler reports.

#### **Chinook Salmon Escapement 2023**

In 2023, a preseason EO was issued restricting Chinook salmon fishing on the Little Susitna River to catch-and-release, and only 1 unbaited, single-hook, artificial lure was allowed. This fishery was closed on 6 July due to weak returns. The use of video at this site allowed fish to be counted throughout the majority of the 2023 season. Cold water temperatures likely impeded upstream migration of Chinook salmon followed by flooding that occurred during the last 10 days of June, making assessment of run strength using weir counts difficult. However, daily counts after recovery of the weir following the flooding were below past years in which the goal was achieved. In addition, reports of low fishing success from anglers, guides, and staff also indicated a much weaker run than in 2022, when the escapement goal was narrowly achieved. The sport fishery was closed by EO on 6 July. The final weir count of 799 was incomplete (Table 20).

# EASTSIDE SUSITNA MANAGEMENT UNIT CHINOOK SALMON FISHERIES Fishery Description

The ESMU (Figures 1 and 3) is composed of 3 distinct geographical areas with different regulations: (1) Unit 2 is the eastside Susitna River tributaries between the Deshka and Talkeetna Rivers (Figure 14), (2) Unit 5 is the Talkeetna River drainage (Figure 15), and (3) Unit 3 is the upper Susitna River area, which includes the Susitna River and its tributaries between the Talkeetna River and Oshetna River (including the Oshetna River drainage; Figure 16) and all eastside tributaries of the Chulitna River (including the East Fork drainage of the Chulitna River).

#### Deshka to Talkeetna Rivers Area

Tributaries of the Deshka to Talkeetna Rivers area (Figure 14) are numerous and are characterized by their clear water. Most of the fisheries in this portion of the management unit (Unit 2) are accessible by road. There are exceptions, including Little Willow and Greys Creeks and various Susitna River side sloughs, that require a boat to access their most productive portions. The George Parks Highway (Alaska Route 1), which connects Anchorage and Fairbanks, parallels the Susitna River on the east. The Alaska Railroad also parallels the east side of the Susitna River to a large extent. Both transportation systems provide angler access to numerous tributaries. These streams are considered only moderate producers of Chinook salmon and are susceptible to high use. Therefore, regulations are more conservative than in any other areas with respect to time and area. Streams within this area are generally managed as a unit because independent actions taken on one stream can transfer a significant amount of effort to adjacent fisheries.

#### Talkeetna River

The Talkeetna River joins the Susitna River about 98 miles upstream from Cook Inlet. This glacial system contains 2 major and numerous minor clearwater tributaries that support Chinook salmon (Figure 15). Clear Creek is the most prominent Chinook salmon fishery within the Talkeetna River drainage. The Talkeetna Spur Road provides access to the Talkeetna River; however, a boat is required to reach virtually all Chinook salmon fisheries within the drainage. This area is primarily accessed from the Talkeetna boat launch.

#### Upper Susitna River Area

The upper Susitna River area (Talkeetna to Devils Canyon; Figure 16) is accessible only by boat or railroad. A public boat launch adjacent to the community of Talkeetna provides access to the area. Boat travel is relatively safe from the Talkeetna River upstream to the entrance of Devils Canyon, a distance of about 55 miles. Boat travel beyond the entrance to Devils Canyon is extremely hazardous and few boat operators venture past this location. Indian River and Portage Creek are the most prominent Chinook salmon fisheries within the Upper Susitna River Area. The entrance to Devils Canyon, beyond which very few salmon can migrate, is about 150 miles upstream from Cook Inlet.

The Chulitna River empties into the Susitna River a short distance upstream of the Talkeetna River at RM 92. Most tributaries entering the Chulitna River from the east are relatively short, high-gradient streams, which receive few spawners. The exception is the East Fork, currently the only Chulitna River tributary supporting a Chinook salmon fishery (Middle Fork, West Fork mouth, and lower Honolulu Creek are included in this fishery).

#### **ESMU Fishery Management and Objectives**

Like management of Chinook salmon in the entire NCIMA, management of Chinook salmon in the ESMU has undergone numerous changes since the 1980s (Appendix B1).

In the Deshka River to Talkeetna River area (Unit 2 or Parks Highway streams; Figure 14), a management strategy with weekend-only fishing has been cautiously developed since sport fisheries reopened in 1979 after a period of closure (Appendix B1). About 10 streams within this area share restrictive regulations due to the potential for high angling effort and proximity to each other (management actions taken on one stream can easily affect effort and harvest on adjacent streams). By regulation, Unit 2 streams within one-quarter mile of the Susitna River are open to

Chinook salmon fishing from January 1 through the third Monday in June and on Saturday, Sunday, and Monday for the next 2 consecutive weeks. For the Willow, Little Willow, Caswell, Kashwitna, Sheep, Goose, and Montana Creeks (Figure 14), fishing is allowed from the Susitna River upstream to the Parks Highway. Fishing on Montana Creek extends one-half mile upstream of the Parks Highway Bridge.

In Unit 5 by regulation, the Talkeetna River and upper Susitna River drainages are open to Chinook salmon fishing from January 1 through July 13 from 6:00 AM to 11:00 PM. Bag and possession limits are 1 fish per day and 1 in possession. Within the Talkeetna River area, Clear Creek is open upstream to RM 2. Both Larson and Prairie Creeks are closed to Chinook salmon fishing. Eastside Chulitna River tributaries are closed to Chinook salmon fishing except the East Fork Chulitna River and its tributaries. Harvest is allowed within a quarter mile of the confluence of the East Fork and West Fork of the Chulitna River (including the Middle Fork) and the first quarter-mile of Honolulu Creek under the weekend-only management strategy described for the Deshka to Talkeetna Rivers area. During the rest of the week, only catch-and-release fishing is allowed. The portion of the Susitna River above the Talkeetna River is designated as a trophy fishery for rainbow trout; therefore, only unbaited, single-hook artificial lures are permitted as terminal gear.

SEG ranges for ESMU Chinook salmon stock goals were established in 2020 (Table 17) based on historical escapement index counts (Bue and Hasbrouck *Unpublished*). The management objective for these 7 streams is to achieve the escapement goal for the Eastside Stock. In the streams that cross the George Parks Highway, management strategies provide maximum levels of sustained Chinook salmon fishing opportunity while attaining escapement objectives.

Due to the downturn in Chinook salmon runs, which was first recognized in 2007, fisheries have become increasingly restrictive and since 2009, EOs have been issued in every year. Willow and Goose Creeks were designated as stocks of yield concern at the 2011 BOF meeting. The BOF closed Goose Creek and placed additional restrictions on other streams within Unit 2 of the Susitna River in an effort to reduce harvest by 50% and thereby boost escapement levels. The last weekend of fishing, added in 2005, was removed from regulation in addition to only allowing fishing from 6:00 AM to 11:00 PM (Appendix B1). Sheep and Goose Creeks share a common channel created in 1971 by a flood that caused a breach in the Sheep Creek channel. Despite efforts to prevent Sheep Creek water flowing into this channel, it persists and is part of the Goose Creek aerial survey index area. Sheep Creek was designated as a "stock of management concern" at the 2014 BOF meeting, and Goose and Willow Creeks were upgraded to stocks of management concern.

BOF action taken in 2011 to decrease harvest in ESMU streams was insufficient to achieve desired escapement objectives in 2011. Beginning in 2012, preseason action was taken by EO to reduce harvest up to 50% across the Susitna and Little Susitna River drainages due to low run years leading up to 2012. Stocks in the ESMU have not been able to sustain harvest in recent years, and angling has been restricted to catch-and-release-only fishing during the times and area outlined in regulation since 2013. Since managed by EO, ESMU streams have alternated between achieving and not achieving the majority of goals each year; only 2 out of 9 SEGs (Yentna Stock and Little Susitna River) were attained in 2022 (Table 17, Figure 17).

#### **ESMU Chinook Salmon Fisheries Recent Performance**

Management decisions affecting ESMU streams (Units 2, 3, 5, and 6) are based upon postseason aerial surveys over 8 streams, providing an annual index of abundance used to estimate run size and escapement of the Eastside Susitna (Unit 2 streams along the Parks Highway) Chinook salmon

stock and the Talkeetna River Chinook salmon stock, which are 2 new stock goals in place since 2020. Several streams were not surveyed due to poor weather conditions and high water. Counts were successfully conducted on Willow, Little Willow, North Fork Kashwitna, and Montana Creeks, which collectively contribute to the Eastside Susitna stock, and Clear and Prairie Creeks, which contribute to the Talkeetna stock. A Chulitna River survey was not feasible due to poor water conditions. Both the Eastside Susitna stock goal and the Talkeetna stock goal were missed in 2023 (Table 17). A preseason EO effective 1 May restricted Chinook salmon fishing in Units 1–6 of the Susitna River drainage to catch-and-release, and fishing was restricted to only 1 unbaited, single-hook, artificial lure. On 23 July, the remainder of Units 1–6 closed to sport fishing for Chinook salmon.

No Chinook salmon have been harvested from the ESMU from 2017 to 2022 (Table 22).

#### **ESMU Chinook Salmon Fisheries Escapement 2023**

Counts were successfully conducted in 2023 on Willow, Little Willow, North Fork Kashwitna, and Montana Creeks that collectively contributed to the Eastside Susitna Chinook salmon stock goal and Clear and Prairie Creeks that contribute to the Talkeetna stock goal. The 2023 Eastside Susitna and Talkeetna stock assessments were 4,003 and 2,216 fish, respectively, and were well below the current SEGs (Table 17). Counts on these systems were some of the lowest on record (Table 23). A survey count of 494 on the Chulitna River was well below an SEG of 1,200–2,900 fish (Tables 17 and 23).

### WESTSIDE SUSITNA MANAGEMENT UNIT CHINOOK SALMON FISHERIES

#### **Fishery Description**

The WSMU includes all westside drainages of the Chulitna River, all westside drainages of the Susitna River below its confluence with the Chulitna River, and—primarily for management purposes—the eastside drainages of the Susitna River within a half mile of the Susitna River downstream of Willow Creek (Figures 1 and 3). Major tributaries within this unit supporting Chinook salmon fisheries include the glacially turbid Yentna River, the largest tributary of the Susitna River, which flows into the Susitna River about 30 miles upstream from Cook Inlet; the Deshka River, with its confluence at RM 40 of the Susitna River; and Alexander Creek (confluence at RM 10 of the Susitna River). The Deshka River produces the largest run of Chinook salmon to the NCIMA; these fish exhibit early run timing due to the relative closeness of the Deshka River to the mouth of the Susitna River. Lake Creek (64 miles from the mouth of the Susitna River at RM 34 of the Yentna River) supports the largest Chinook salmon fishery on the Yentna River.

Access to these relatively remote fisheries is primarily by boat or aircraft. Susitna Landing, located at the mouth of the Kashwitna River, and Deshka Landing, located about 4 miles upstream from the Deshka River, are the principal boat access sites on the Susitna River. A few anglers also gain access to WSMU fisheries by traversing Cook Inlet by boat from the Port of Anchorage. The Petersville Road provides the only vehicular access to this portion of the Susitna River drainage, allowing access to the upper reaches of the Deshka River and Peters Creek.

#### **Fishery Management and Objectives**

Management of Chinook salmon in the WSMU has undergone numerous changes since the 1980s, as has management of Chinook salmon in the entire NCIMA (Appendix B1). These changes reflect

periods of strong Chinook salmon runs during most of the 1980s and from about 1997 to 2006, surrounding periods of weak runs (1991–1996 and 2007–present).

Currently, the bag limit for the WSMU Chinook salmon fisheries is 1 fish daily and 2 in possession. A seasonal limit of 5 Cook Inlet Chinook salmon also applies. Only unbaited, single-hook artificial lures are allowed in large portions of Lake Creek and the Deshka and Talachulitna Rivers. Sport fishing guides may not participate or engage in fishing for Chinook salmon while clients are present or within their control.

An escapement monitoring weir at RM 7 of the Deshka River is an important tool for managing Chinook salmon returning to the Susitna River. The Deshka River weir operates from mid-May through the duration of the Chinook salmon season to provide managers with timely inseason run information as well as postseason biological data used to assess productivity in this system. A weir-based SEG range of 13,000–18,000 fish was established for the Deshka River based on run reconstruction performed in 2020 (Reimer and DeCovich 2020) as well as an SEG range for the Yentna River stock of 13,000–22,000 fish. An OEG was established by the BOF for 16,000–22,000 fish. Contributing surveyed streams include the following: Lake, Peters, Cache, Eightmile, Red, Canyon, and Red Salmon Creeks, and Hayes and Talachulitna Rivers (Table 17). Due to recent impacts by nonnative northern pike, the Alexander Creek SEG (1,900–3,700 Chinook salmon) was based on historical aerial index counts of escapement (Bue and Hasbrouck *Unpublished*). The management objective for these systems is to achieve the escapement goals while providing maximum levels of Chinook salmon fishing opportunity.

A weir has been the cornerstone for inseason management of the Chinook salmon fishery on the Deshka River since its inception in 1995. Over recent years, a preseason outlook of run size to the Deshka River has been used for early inseason management. The preseason outlook uses sibling regression to predict the number of returning age-5 and age-6 fish. It also uses a spawner–recruit relationship combined with the average proportion of age-4 spawners to predict the number of age-4 fish. Harvest is incorporated to estimate total run size. The SWHS is generally used to estimate sport harvest, whereas saltwater harvest is estimated by taking a proportion of the combined harvests in the Northern District directed commercial setnet, the Tyonek subsistence, and the Kustatan subdistrict commercial setnet fisheries. That proportion is determined from the aerial survey count of the Deshka River Chinook salmon escapement divided by the sum of all aerial Chinook salmon counts in the NCIMA. The outlook has limited utility as a management tool because of the variability in precision of the various models used in forecasting the 3 major returning age classes; the outlook has been off by an average of 8,000 fish, mostly overforecasting runs. It is useful as an index of expected run strength but should not be used alone for making management decisions.

Northern pike have probably reduced Chinook salmon productivity in the Alexander Creek drainage through predation on juvenile salmon. Low escapement counts beginning in 2006 resulted in the sport fishery being closed by BOF action in 2008. Currently, an effort is underway to suppress the northern pike population in Alexander Creek through annual gillnetting (see northern pike section). Alexander Creek escapements have not been met since 2005 (Tables 17 and 24).

#### WSMU Chinook Salmon Fisheries Recent Performance

In Unit 1, the sustainable escapement goal (SEG) for the Deshka River of 13,000–25,000 Chinook salmon was not achieved in 2022 with just 5,440 Chinook salmon through the weir (Table 17). The sport fishery was closed effective 20 June, at the midpoint of the run. The run was on time

relative to historical run timing. In Unit 4, aerial escapement surveys were conducted in late July on 2 streams contributing to the Yentna Chinook salmon stock: Lake Creek and Peters Creek. Poor weather conditions contributed to high water events through the end of July, resulting in poor counting conditions; the Talachulitna River and Alexander Creek were not surveyed. Assessment of the Yentna stock optimal escapement goal (OEG) of 16,000–22,000 was met with 16,583 Chinook salmon. A preseason emergency order effective 1 May restricted Chinook salmon fishing in Units 1–6 of the Susitna River drainage to catch-and-release only. On 20 July, Deshka River closed to sport fishing by Emergency Order, and on 23 July the remainder of Units 1–6 closed to sport fishing by EO.

Total harvest in the WSMU in 2022 was zero Chinook salmon (Table 25). The average harvest for the WSMU from 2017 to 2021 was 580 Chinook salmon (Table 25).

#### WSMU Chinook Salmon Fisheries Escapement 2023

The BEG for the Deshka River of 9,000–18,000 Chinook salmon was not achieved in 2023 (Table 17) despite the sport fishery remaining closed throughout the season. The run was 4 days late relative to historical run timing. The final weir count was 3,741 Chinook salmon (Table 17, Figure 18). Aerial escapement surveys were conducted in late July on 3 streams contributing to the Yentna Chinook salmon stock: Lake Creek, Talachulitna River, and Peters Creek. Assessment of the Yentna OEG of 16,000–22,000 was 8,294 (Table 17, Figure 18); all 3 aerial counts were well below average. A preseason EO closed Chinook salmon fishing in the Susitna River drainage, except in the Yentna River, which was restricted to catch-and-release only, with only 1 unbaited, single-hook, artificial lure allowed.

#### WEST COOK INLET MANAGEMENT UNIT CHINOOK SALMON FISHERIES

#### **Fishery Description**

Prior to 2000, the WCIMU extended south from the mouth of the Susitna River to the West Foreland of Cook Inlet (Figure 19). Beginning in 2000, the WCIMU was expanded to include all waters along the west side of Cook Inlet to the latitude of the southern tip of Chisik Island. Streams in the WCIMU, except the Chakachatna–McArthur and Beluga River drainages, are relatively small, clearwater coastal drainages that originate in the Alaska Range, Aleutian Range, or from the slopes of Mount Susitna. The Chakachatna–McArthur and Beluga River drainages are largely glacial and receive minor use by Chinook salmon anglers. Beginning in 2000, the data in this report reflect harvest, effort, and catch data from the expanded management unit.

Streams south of the West Foreland, namely the Kustatan River and Polly Creek, support small runs of Chinook salmon and generate only a small Chinook salmon harvest (Table 26). Stocks from the WCIMU are also harvested in commercial fisheries as well as a subsistence fishery located near the community of Tyonek. The Chuitna and Theodore Rivers were the area's most prominent Chinook salmon sport fisheries until they were closed in 2010 due to low returns (Table 26).

Chinook salmon begin to arrive in the area during late May, with the peak of most fisheries occurring during mid to late June.

Access to the coastal fisheries of the WCIMU is by air or water because there is no road link to the Southcentral Alaska highway system. Helicopters are used to access the upper reaches of these streams, and airplanes, combined with the use of land vehicles, provide access to the lower reaches.

A road network, built to facilitate oil and gas exploration and the timber industry, does exist in the Tyonek–Beluga area. Several gravel aircraft landing strips are present, and a few roads also serve as runways. The community of Tyonek, with a population of nearly 200, is the area's primary population center.

#### **Fishery Management and Objectives**

SEGs for 2 WCIMU streams (Chuitna and Theodore Rivers) were established in 2002 (Table 17), based on historical escapement index counts. The management objective for these 2 streams is to achieve the escapement goal while providing maximum levels of sustained Chinook salmon fishing opportunity.

West Cook Inlet Chinook salmon fisheries are open January 1–June 30. The current bag and possession limit is 1 daily and 1 in possession, and a seasonal limit of 5 Cook Inlet Chinook salmon. Only unbaited, single-hook artificial lures are allowed in drainages between the mouth of the Susitna River and the West Foreland. In drainages from the West Foreland to the southern tip of Chisik Island, bait is allowed after May 15. The Chuitna, Theodore, and Lewis Rivers were closed by the BOF during the 2011 meeting due to failed escapements over a 4–5 consecutive year period. These systems remain designated as stocks of management concern. The Beluga River drainage was also closed at the 2011 meeting.

A 3-year Chinook salmon weir project was initiated on the Theodore and Lewis Rivers in 2012 to assess the effectiveness of the aerial count as an index of the spawning escapement. The Chuitna River was the first choice for a weir program; however, it was found to be unsuitable for a weir and sonar was eliminated as an option because species apportionment would probably impair estimates. The Theodore and Lewis Rivers proved to be difficult systems to monitor using resistance board weirs due to fine and loose substrate, combined with frequent flash flooding events that often led to scouring under the rail and loss of complete weir counts (Logelin et al. 2017). The weir vs. aerial comparison could only be made a third of the time during the study period; aerial surveys conducted on the Theodore River in 2012 and 2013 indicated 22% and 69% of the actual escapement counted from the air, respectively.

#### **WCIMA Chinook Salmon Fisheries Recent Performance**

Only 140 Chinook salmon were reported harvested from the West Cook Inlet area in 2022 (Table 26). The major WCIMA Chinook salmon fisheries occurring on the Chuitna and Theodore Rivers have been closed since 2010, first by EO in 2010 and then by regulation beginning 2011 (Appendix B1). Beluga River drainage streams were also closed in 2011. Aerial index surveys were not conducted in 2022 due to high water (Table 27).

#### **Chinook Salmon Fisheries Escapement 2023**

Sport fisheries on the Chuitna, Theodore, Lewis, and Beluga River drainages are closed by regulation. An aerial survey was conducted on the Chuitna River in which 372 (Table 27) Chinook salmon were counted, well below the SEG of 1,000–1,500 fish (Table 17). The survey of the Theodore River was not completed in 2023. A preseason EO closed Chinook salmon fishing on all WCIMA streams not already closed by regulation.

#### **COHO SALMON FISHERIES**

#### AREAWIDE OVERVIEW

#### **Areawide Fishery Management and Objectives**

Management of coho salmon in the NCIMA has undergone numerous changes (Appendix B3). Each season, management strategies for NCIMA coho salmon are implemented as the stocks begin entering Cook Inlet and are intercepted, first by the commercial fishery and then the sport fishery.

As coho salmon enter fresh water, ADF&G has limited ability to gauge overall run size. Until 1997, counting weirs at the Little Susitna River and the Deshka River provided the only quantitative measure of coho salmon abundance in the NCIMA. Beginning in 1997, weirs were also operated in Wasilla, Cottonwood, and Fish Creeks. Wasilla and Fish Creek weirs were discontinued after 2003, and Cottonwood Creek weir was discontinued after 2004. The Fish Creek weir operated through September (the end of the coho salmon season) from 2009 to 2015. Prior to 2009 and during the 2016 season, the weir was removed around August 15, halfway through the historical coho salmon run. Fish wheels on the lower Susitna and Yentna Rivers and foot and aerial index counts for a few streams also contribute information about relative abundance. Within the NCIMA, 8 index areas are surveyed annually by foot: McRoberts and upper Jim Creeks (Knik River); Cottonwood and Wasilla Creeks (Knik Arm); and Rabideux, Birch, Question, and Answer Creeks (Susitna River). Ongoing abundance estimates of coho salmon in the Susitna River drainage should help determine if the Deshka River weir counts provide a reliable index of run strength to the Susitna River drainage. In addition to foot surveys in the fall, low runs and a large sport fishery prompted the development of a weir project on Jim Creek beginning in 2015.

Intermittent or partial creel survey data have also been collected from other coho salmon fisheries in the area. The SWHS began estimating coho salmon harvest above and below the weir (RM 32.5) in 2013 to detect any changes in harvest patterns from past harvest estimates.

Poor runs in 1997 and 1999 prompted inseason restrictions to both sport and commercial fisheries. Unfortunately, these restrictions were made too late to increase coho salmon escapement. Low escapements of coho salmon to UCI streams prompted the governor of Alaska and users of the coho salmon fishery to submit a request to the BOF to meet out of its 3-year cycle and address this conservation problem. The BOF met in February 2000 and significant actions to both the sport and commercial fisheries were taken to reduce the overall harvest of Cook Inlet coho salmon (Appendix B3). Runs from 2000 through 2009 were mostly above average but from 2010 to 2012, runs across NCIMA were considered to be particularly poor. In 2011, the BOF made changes to the Central District Drift Plan (Appendix C1) during the last 2 weeks in July to pass more coho salmon to the Northern District.

There has been growing interest in genetic stock identification (GSI) of coho salmon in Cook Inlet to help determine where northern stocks are harvested both temporally and spatially as they migrate through various fisheries to natal streams (referred to as mixed stock analysis or MSA). In 2013, the state funded a 3-phase study to develop a Cook Inlet coho salmon baseline and apply this baseline to analyze fishery mixtures. By 2016, the genetic baseline contained 84 Cook Inlet coho salmon populations analyzed for 86 genetic markers<sup>9</sup>. Phase III of this project used the

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Barclay, A. W., P. A. Crane, D. B. Young, H. A. Hoyt, and C. Habicht. *In prep*. Population structure of Cook Inlet coho salmon and evaluation for mixed-stock analysis using 86 SNP loci and 84 populations. Alaska Department of Fish and Game, Fishery Manuscript Series, Anchorage.

baseline as reported in Barclay et al. (2016) and analyzed samples collected in 2013–2015 from the offshore test fisheries and the commercial fishery (Barclay et al. 2017).

Results showed drift fishery weekly harvests (excluding corridor-only periods) of coho salmon were highest between July 17 and August 7 in 2013–2015. Northern District set gillnet harvests of *Northwest Cook Inlet–Yentna*, *Susitna*, and *Knik* coho salmon decreased after about August 12 in 2013–2015. Patterns of stock-specific coho salmon harvests in the Northern District set gillnet fishery were found to be spatially consistent. In 2013–2015, General Subdistrict (south-Tyonek, Trading Bay, Beluga stat areas) harvests were dominated by *Susitna* and to a lesser extent *Northwest Cook Inlet–Yentna* coho salmon, and General Subdistrict (north–Susitna Flats, Point Mackenzie, Fire Island stat areas), harvests were dominated by *Knik* coho salmon. In 2013–2015, Eastern Subdistrict harvests were dominated by *Turnagain–Northeast Cook Inlet* coho salmon. These patterns indicate that these stocks are generally harvested in relatively close proximity to their natal streams (Barclay et al. 2017).

# KNIK ARM MANAGEMENT UNIT: LITTLE SUSITNA RIVER COHO SALMON FISHERY

#### **Fishery Description**

Access to the Little Susitna River occurs at 3 primary locations: (1) intertidal waters of the river are accessed by boats crossing Knik Arm from the Port of Anchorage public boat launch; (2) the road-accessible Little Susitna Public Use Facility (Burma Road Access; LSPUF), which includes a launch and campground; and (3) private and public launches near the Parks Highway, which provide access to the upper reaches of the river. The Little Susitna Public Use Facility is the most heavily used access to the river. Powerboats can travel on the Little Susitna River from the mouth of the river to the Parks Highway during periods of moderate to high water levels. However, during low flows, travel is restricted to smaller jet boats between RM 28 and the Parks Highway at RM 70.

Coho salmon return to the Little Susitna River primarily from mid-July through early September. Tagging studies indicate that coho salmon migrate slowly up the Little Susitna River and remain available to the fishery for about 4 weeks, after which they pass the George Parks Highway Bridge into waters closed to fishing for salmon (Bentz 1985). Spawning takes place from late September through mid-October. Spawning primarily occurs upstream from the George Parks Highway in the mainstem of the river, but some spawning occurs in tributary streams.

#### **Fishery Management and Objectives**

Currently the bag and possession limits are 2 coho salmon 16 inches or more in total length per day and in possession. Only unbaited, artificial lures are allowed in the Little Susitna River from October 1 through August 5. This regulation was originally designed to reduce the catch rate of early-arriving nonhatchery fish and now remains in effect to reduce hook-and-release mortality of ocean-fresh coho salmon entering the lower river during the first quarter of the run. Hook-and-release mortality of coho salmon caught within the estuary using bait was found to be about 70% in a 1993 study designed to simulate fishing practices at the time (Vincent-Lang et al. 1993). Today, in addition to a delay in bait use until later in the season, 2 other measures have been adopted to help reduce hook-and-release mortality: (1) anglers are required to quit fishing when they reach their bag limit of Little Susitna River coho salmon, and (2) coho salmon intended for release cannot be removed from the water.

Coho salmon runs on the Little Susitna River are significantly correlated with those of other Knik Arm streams (Tom Namtvedt and Richard Yanusz, Division of Sport Fish Biologists, Palmer, Alaska, personal communication). The weir at its present location at RM 32.5 provides timely data to manage the sport fishery.

#### Little Susitna River (KAMU) Coho Salmon Recent Fishery Performance

In 2022, the SEG of 9,200–17,700 for the Little Susitna River was not officially met with an incomplete count of 2,729 coho salmon (Table 28). Harvest of coho salmon on the Little Susitna River in 2022 was 2,114 fish (Table 29). This was below the 2017–2021 average of 3,803 fish (Table 29).

The Little Susitna River weir was inundated by floodwaters for most of the coho salmon season. Projected escapement was within the SEG range before the flood overtopped the weir at the historical quarter point of the run on 6 August and lasted for a month. Bait went into effect per regulation. Angler and guide reports of fishing success on the Little Susitna River ranged from good to above average throughout most of the season even during the flood event. The weir flooded from 18 July until 28 July and was only "fish tight" until 6 August when it flooded again. A weir count of 2,792 coho salmon was considered incomplete and therefore a minimal count (Table 28). Even though the weir count was lost due to flooding, based on inseason reports of good fishing, it is likely the SEG would have been attained. Due to budget reductions the weir was pulled on 10 August.

#### Little Susitna River (KAMU) Coho Salmon Recent Fishery Escapement 2023

The Little Susitna weir was inundated by flood waters at the outset of the season. However, as the weir was again functional starting July 24, it is unlikely many coho salmon were missed. Initially, weir counts were favorable and produced an upward-trending projection that peaked near the upper end of the SEG range by August 4, near the quarter point of the historical run. Bait went into effect on August 6 per regulation. Weir counts fell off as much as a week early relative to historical run timing, indicating an early weak run. Overall fishing success was reportedly low. By mid-August, EOs prohibited the use of bait, followed by closure of the sport fishery to the retention of coho salmon. Additional flooding later in the season resulted in losing the count after August 25 or by the 80th percentile of the average historical run. A weir count of 2,949 fish is considered incomplete; however, it is likely the SEG of 9,200–17,700 was missed in 2023 (Table 28).

#### KNIK ARM MANAGEMENT UNIT: OTHER COHO SALMON FISHERIES

#### **Fishery Description**

The Knik Arm Management Unit (Figures 1 and 2) presently supports 5 significant sport fisheries for coho salmon in addition to the Little Susitna River: Fish Creek, Cottonwood Creek, Wasilla Creek, Jim Creek, and Eklutna Tailrace. This unit also has a personal use dip net fishery on Fish Creek and 3 educational permit fisheries (Knik Tribal Council, Eklutna Village, and Big Lake Cultural Outreach).

Jim Creek enters the glacial Knik River about 10 river miles from salt water. Most sport fishing occurs at the confluence of Jim Creek and the Knik River, an area locally known as the Jim Creek Flats. Fishing effort and harvest rates in the Jim Creek Flats area are strongly influenced by the Knik River because its glacial waters can inundate the entire area. Powered and nonpowered boats

can access upstream reaches of Jim Creek either from the Knik River or by launch into Mud Lake or a short portage from Jim Lake into lower McRoberts Creek, a tributary to Jim Creek.

Fish, Cottonwood, and Wasilla Creeks (Figure 2) are restricted primarily to intertidal fisheries and have been open to salmon fishing on weekends only (Saturday and Sunday) since 1971 because harvestable surpluses cannot normally accommodate continuous daily exploitation. Time restrictions were added in February 1999 after poor runs during 1997 and 1999 (Appendix B3). Motorboats are not permitted on Wasilla Creek during weekends from 15 July through 15 August.

Coho salmon return to Knik Arm fisheries from late July through August. Spawning occurs from late September through mid-October. The average weight of Knik Arm coho salmon, excluding those of Little Susitna River origin, is less than 6 pounds.

#### **Stocking Program**

The sport fishery at the Eklutna Tailrace (Figure 20) was originally supported by coho salmon returning to the Cook Inlet Aquaculture Association's (CIAA) hatchery located at the head of the tailrace. The nonprofit Eklutna Hatchery operated from 1981 to 1998. Presently, fish reared at the ADF&G William Jack Hernandez Sport Fish Hatchery support the fishery, which is confined to the 0.5-mile-long tailrace and all waters within a half-mile radius of its confluence with the Knik River and to an ADF&G marker located 2 miles downstream of the confluence. Sport anglers harvest stocked coho salmon and a few wild sockeye and chum salmon in the tailrace during the coho salmon run. Salmon of Knik River and Matanuska River drainage origin are also harvested at the confluence of the tailrace and the Knik River. Current objectives of the Eklutna stocking program are to stock 120,000 thermally marked coho salmon annually to produce a return of 7,500 adult coho salmon and generate 6,000 angler-days of effort (Loopstra and Hansen 2015). According to 2022 SWHS estimates, Eklutna Tailrace supported 4,611 angler days of fishing effort. ADF&G Division of Sport Fish continues to annually stock 120,000 coho salmon smolt into Eklutna Tailrace<sup>10</sup>.

Coho salmon have been periodically stocked into other KAMU systems. Stocking of Fish and Cottonwood Creeks was initiated during the late 1970s and at Jim and Wasilla Creeks in the late 1980s (Whitmore et al. 1994-1996; Whitmore and Sweet 1997-1999; Rutz and Sweet 2000; Sweet and Rutz 2001; Sweet et al. 2003, 2004). Contribution of hatchery fish to the catch and harvest in the sport fisheries was not evaluated.

#### **Fishery Management and Objectives**

Historical escapement data are available for Fish, Cottonwood, and Wasilla Creeks from weirs operated on each creek in the past from about 20 July through 25 September and foot index counts conducted annually on Cottonwood and Wasilla Creeks. For Jim Creek, foot surveys are conducted on McRoberts Creek, a tributary of Jim Creek, and upper Jim Creek; the counts are summed to provide a total Jim Creek escapement index. However, only the McRoberts Creek counts are used in the escapement goal. The management objective for all Knik Arm streams, including the Little Susitna River (previous section), is to provide sustainable harvest opportunity while achieving the escapement goals on the Little Susitna River, Fish Creek, and Jim Creek. Coho salmon weir counts on Wasilla, Cottonwood, and Fish Creeks and the Little Susitna River have been found to be

ADF&G Statewide Stocking Plan, <a href="http://www.adfg.alaska.gov/index.cfm?adfg=fishingsportstockinghatcheries.stockingplan">http://www.adfg.alaska.gov/index.cfm?adfg=fishingsportstockinghatcheries.stockingplan</a>, accessed December 2023.

significantly correlated (Tom Namtvedt and Richard Yanusz, Fisheries Biologists, ADF&G, Palmer, personal communication). Fish Creek weir counts are used for inseason management of Fish Creek as well as Wasilla and Cottonwood Creeks where weirs are not currently operated. The Little Susitna weir located at RM 32.5 is a useful tool for timely inseason management of the coho salmon fishery.

The BOF reduced the bag and possession limits for all Knik Arm fisheries in 2000, excluding the stocked coho fishery at the Eklutna Tailrace, to 2 coho salmon 16 inches or more in total length in response to poor runs occurring in 1997 and 1999 (Appendix B3). Jim Lake, McRoberts Creek, and upper Jim Creek, tributaries supporting large spawning populations in the Jim Creek drainage, were closed to salmon fishing in 2000; Mud and Leaf Lakes of the Jim Creek system joined the list of closed waters in 2014.

Between 2004 and 2009, effort and harvest more than doubled from previous levels on Jim Creek but then began dropping in 2009 and 2010 (Table 29). The SEG was missed during 2010–2012, 2014, and 2016 (Table 28). To reduce harvest closer to historical levels, the BOF modified regulations at the 2014 and 2017 meetings to reduce fishing time on Jim Creek by allowing sport fishing to occur on Wednesdays through Sundays only beginning August 1 and limiting fishing hours to only 5:00 AM–10:00 PM after August 1.

#### Other KAMU Coho Salmon Fisheries Recent Performance

Total sport harvest of coho salmon in Knik Arm streams was 6,946 fish in 2022; the 2017–2021 average was 8,805 fish (Table 29). Fishing success on the weekend-only fisheries of Cottonwood, Fish, and Wasilla Creeks was fair later in August. The Eklutna Tailrace harvest of 373 fish was far below the average harvest for the previous 5-year period of 1,037 coho salmon (Table 29).

In 2022, a weir was operated on Fish Creek, but the weir was pulled at the end of July due to budget reductions; therefore, no count was conducted for coho salmon. The SEG for Jim Creek of 250–700 fish is assessed after the fishing season by a foot survey on McRoberts Creek, a small spawning tributary within the Jim Creek System. The foot survey of 1,899 coho salmon exceeded the escapement goal (Table 28 and Figure 21). In general, fishing across all of the KAMU was above average. No management actions were implemented on coho salmon in the KAMU during the 2022 season.

#### Other KAMU Coho Salmon Recent Fishery Escapement 2023

Fish Creek weir was funded to operate for the full coho salmon season in 2023. The SEG of 1,200–6,000 fish was attained on August 16, with a final count of 1,534 fish (Table 28 and Figure 22). The run was 8 days early based on the midpoint of the average historical run.

Jim Creek weir was funded to operate during 2023. A weak showing of coho salmon prompted closing the sport fishery to salmon fishing by mid-August at about the quarter point of the historical run. Weir counts up to this point were tracking well below years when the weir was installed and the goal was achieved and were similar to the count at this time during 2016 when the SEG was missed. The weir count was ultimately lost to flooding that inundated the weir starting August 28 or at about the 70% point of the historical run. The SEG for Jim Creek of 250–700 coho salmon is assessed by a postseason foot survey of McRoberts Creek, a small spawning tributary within the Jim Creek system. A survey conducted on September 26 counted 378 coho salmon, within the goal range (Table 28 and Figure 20).

# EASTSIDE SUSITNA AND WESTSIDE SUSITNA MANAGEMENT UNITS COHO SALMON FISHERIES

#### **Fishery Description**

A description of these management units, including access, is presented in the Chinook salmon section of this report. The Susitna River drainage supports the largest coho salmon stock within the NCIMA and the entire Upper Cook Inlet area. Coho salmon returning to the Susitna River units are early-run stocks that begin to enter these drainages about mid-July. The migration into the Yentna River drainage (RM 28 of the Susitna River, WSMU) normally peaks the last week in July, whereas the peak passage into the Talkeetna River (RM 98 of the Susitna River, ESMU) takes place 7 to 10 days later. Few coho salmon enter the Susitna River after early September. Most spawning occurs between mid-September and mid-October.

All Eastside Susitna Management Unit tributaries provide fishing opportunities for coho salmon. The Deshka River and Lake Creek are the major WSMU coho salmon fisheries. Fish Lakes Creek and the Talachulitna River provide modest harvests, whereas the Alexander Creek fishery has diminished, possibly a result of northern pike predation on juvenile coho salmon.

#### **Fishery Management and Objectives**

Coho salmon sport fishing is permitted throughout the year at most sites in the ESMU and WSMU. However, portions of several ESMU fisheries are closed to salmon fishing to protect spawning fish. Closed areas usually include upper reaches of tributaries that are road accessible.

Flowing waters of major tributaries or portions of tributaries within the Susitna River drainage are restricted to unbaited, single-hook artificial lures throughout the year. These regulations are implemented as part of special management regulations for rainbow trout under the statewide management standards for wild trout (5 AAC 75.220) and in part under current Chinook salmon management strategies (Appendix C1). Only unbaited artificial lures may be used from September 1 through May 15 in all flowing waters of the Susitna River drainage. Additionally, except in the Deshka River, bait is prohibited from May 15 through July 13 in waters open to Chinook salmon fishing. Exceptions have been made for fishing burbot (*Lota lota*) when legal burbot fishing gear is used.

The BOF reduced the bag and possession limits for all Susitna River fisheries in 2000 to 2 coho salmon 16 inches or more in total length in response to poor runs occurring in 1997 and 1999 (Appendix B3). Runs to the Susitna River rebounded in 2000 resulting in a relaxation of restrictions in following years. Bag and possession limits were increased in the WSMU at the January 2005 BOF meeting to 3 fish 16 inches or more in total length and 6 in possession, except in Alexander Creek where the 2-fish bag and possession limits were retained. The bag and possession limits were increased to 3 per day and in possession in the Talkeetna, Chulitna, and upper Susitna River areas (Units 3, 5, and 6) during the 2011 BOF meeting. The bag and possession limits for coho salmon remain at 2 fish along Parks Highway streams of Unit 2 within the ESMU.

Besides the Deshka River weir where the escapement is counted, 4 other small streams are indexed annually: Rabideux, Birch, Question, and Answer Creeks. There are no SEGs within the ESMU and WSMU. The sport fishery is currently managed under conservative regulations meant to ensure sustainable harvest over the long term because inriver exploitation is relatively low.

Ongoing abundance estimates of coho salmon in the Susitna River drainage should help determine if Deshka River weir counts provide a reliable index of run strength to the Susitna River drainage.

#### **Coho Salmon Fisheries Recent Performance 2022**

Coho salmon sport harvest in the ESMU in 2022 was an estimated 6,722 fish (Table 30). The 2017–2021 mean was 10,755 coho salmon. A harvest of 8,573 fish in the WSMU in 2022 was also lower than the 2017–2021 mean of 10,652 fish (Table 31).

Due to budget reductions and impending flood waters, the Deshka River weir was pulled on 8 August 2022. Through this date, 3,137 coho salmon were counted. The projected escapement was steadily building toward the low end of the SEG of 10,200–24,100 prior to the weir being pulled. Fishing success was consistent and mostly good during the season, indicating adequate escapement on the Deshka River and other Susitna River drainage tributaries. No management actions were implemented during the 2022 sport fishery season.

Due to budget restrictions, there were no escapement index count totals on the Eastside Susitna streams of Rabideux, Birch, Question, and Answer Creeks for the 2022 season.

#### **Coho Salmon Recent Fishery Escapement 2023**

Funding was secured to operate the Deshka River coho salmon weir through the entirety of the season. Flooding prevented fish counts during the outset of the season through July 27. However, when the weir was installed, counts indicated far fewer fish were passing than needed to achieve the SEG of 10,200–24,100 fish. Furthermore, reports by guides and anglers and observations by staff indicated below-average fishing success on most fishing days for the Deshka River and across other Susitna River drainage streams. An emergency order was issued mid-August to close the Deshka River to the retention of coho salmon and reduce the bag limit to 1 coho salmon and prohibit the use of bait in all other waters of the Susitna River drainage. Another more severe flood was experienced late in the season, ending the weir project on August 25, about 90% through the historical run. The final count of 1,817 is considered incomplete; however, it is unlikely the SEG would have been achieved (Table 32).

#### WEST COOK INLET MANAGEMENT UNIT COHO SALMON FISHERIES

#### **Fishery Description**

A description of this management unit, including access, is presented in the Chinook salmon section of this report. Little information is available regarding run timing of West Cook Inlet Management Unit coho salmon. However, it is assumed similar to run timing in the Susitna River. The Chuitna and Theodore Rivers provide major fisheries north of the West Foreland, and the Kustatan River and tributaries of Big River Lakes provide major fishery sites south of the West Foreland.

#### **Fishery Management and Objectives**

Regulatory history of WCIMU is found in Appendix B3. In the WCIMU, all flowing waters are closed to salmon fishing October 1 to December 31. The bag and possession limits for coho salmon are 3 per day and 6 in possession. South of the West Foreland the limit is 3 per day and 6 in possession. There are no coho salmon goals for the WCIMU.

#### Coho Salmon Fisheries Recent Performance 2022 and 2023 Escapement

Coho salmon escapement is not monitored on WCIMU streams and ADF&G must rely on trends in harvest and effort taken from the Statewide Harvest Survey and reports from anglers and guides when assessing these stocks. Like the Susitna River, reports from anglers and guides were of a late and very strong run of coho salmon to streams supporting popular sport fisheries.

The 2022 sport harvest of coho salmon from WCIMU was an estimated 3,995 fish (Table 33), which was below the 2017–2021 average of 7,578 fish. The largest harvest of coho salmon came from the Kustatan River with an estimated harvest of 1,124 fish, which was below an average of 2,406 from 2017 to 2021 (Table 33). A harvest of 1,163 fish at Big River Lakes was just below average.

No management actions were implemented during the 2022–2023 sport fishery. This fishery performed very similarly to the Susitna River coho salmon fishery according to reports from anglers and guides, who indicated an average run of coho salmon in popular fisheries such as the Kustatan River and Big River Lakes.

#### **SOCKEYE SALMON FISHERIES**

#### FISHERY DESCRIPTION

The Yentna River is thought to support about 77% of the Susitna River sockeye salmon escapement (Fair et al. 2009). The sport fishery for sockeye salmon in NCIMA drainages is mostly incidental to harvest of other salmon. Big River lakes has been a growing sockeye salmon sport fishery in the WCIMU, and in recent years is one of the largest fisheries in the NCIMA. The majority of the harvest in this fly-fishing-only fishery occurs at the mouth of Wolverine Creek, which drains into Big River lakes. Other directed sockeye salmon fisheries occur in the Susitna River drainage at Larson Creek (Talkeetna River drainage) in the ESMU; Lake Creek and the Yentna and Talachulitna Rivers in the WSMU; the mouth of Nancy Lake Creek (Little Susitna River drainage); and at Jim Creek in the KAMU. Any surpluses of sockeye salmon above escapement needs at Fish Creek of the KAMU are targeted by a personal use fishery (see Personal Use and Subsistence Fisheries section).

#### FISHERY MANAGEMENT AND OBJECTIVES

Regulations for sockeye salmon sport fisheries of the NCIMA follow general regulations for salmon other than Chinook salmon over 16 inches in total length. The bag and possession limits on WSMU and WCIMU tributaries are 3 per day and 6 in possession; ESMU and KAMU tributaries are limited to 3 per day and 3 in possession. Wolverine Creek within a 500-yard radius of its mouth is managed as the area's only fly-fishing-only waters during June 1–July 31.

The management objective for sockeye salmon in the NCIMA sport fisheries is to attain established escapement goals as measured at various weirs. The SEG for Fish Creek is 15,000–45,000 sockeye salmon counted through a weir. The Yentna SEG and OEG were discontinued after 2008 and replaced with 3 weir-based SEGs: Chelatna Lake (SEG 20,000–65,000), Judd Lake (SEG 25,000–55,000), and Larson Lake (15,000–50,000).

Following guidelines set forth in the Policy for Management of Sustainable Salmon Fisheries for the State of Alaska<sup>11</sup>, the BOF designated Susitna River sockeye salmon a stock of yield concern in 2008 based on a failure to achieve the Yentna River SEG in 5 of the previous 8 years and lower than expected yields<sup>12</sup>. An action plan was created, directing management of the Central District drift gillnet fishery to continue under restrictive guidelines set forth in the plan, and a restrictive measure within the Northern District Salmon Management Plan was implemented that limits fishing to one-third of the normally allotted gear (1 set gillnet not more than 35 fathoms in length) from July 20 to August 7. In late 2008, a sockeye salmon escapement goal review was conducted out of the BOF 3-year cycle (Fair et al. 2009) to address uncertainty in estimating Yentna River sockeye salmon escapements using Bendix sonar. This review determined that the sonar-based SEG should be abandoned and replaced with 3 weir-based SEGs. Inseason management of the sport fisheries has not taken place since implementation of the aforementioned action plan. The action plan states sport harvest will not be used to determine escapements or in developing escapement goals. Further, the Susitna River sport fisheries will remain open with a 3 fish bag limit unless directed otherwise by the BOF, and any harvest restrictions will be realized in the commercial fisheries, in most cases. Weir counts at Judd, Chelatna, and Larson Lakes are used for postseason evaluation of run size.

At the 2017 BOF meeting, the BOF amended the *Central District Drift Gillnet Fishery Management Plan*. The purpose of this plan was to ensure adequate escapement of salmon into the Northern District drainages and to provide management guidelines to ADF&G (Appendix C1).

At the 2020 BOF meeting, the BOF delisted Susitna River sockeye salmon as a stock of concern.

# SOCKEYE SALMON FISHERIES RECENT PERFORMANCE AND 2023 ESCAPEMENT

The 2022 harvest across NCIMA was 12,554 sockeye salmon, which was below the 2012–2021 average of 14,690 sockeye salmon (Table 34).

In 2022, weirs were operated by the ADF&G Division of Commercial Fisheries to enumerate sockeye salmon escapements into 2 lakes: Judd Lakes (Talachulitna River) of the Yentna River drainage and Larson Lake (Larson Creek) on the Susitna River. The weir on Chelatna Lake (Lake Creek) was not operated in 2022 due to budget restrictions. Sport fisheries on the Talachulitna River and Lake Creek are too far downstream of the weirs for timely inseason management. On Larson Creek, the sport fishery is relatively close to the weir at Larson Lake, allowing for inseason management of the fishery. No actions affecting the sport fishery on Larson Creek were necessary in 2022 and the SEG at Larson Lake was achieved with 17,436 fish; the SEG for Judd Lake was also attained (Table 35 and Figure 22).

On the Knik Arm, the SEG for the Fish Creek of 15,000–45,000 salmon was exceeded in 2022 with about 58,333 sockeye salmon through the weir by 29 July (Table 35), and the Fish Creek personal use dipnet fishery was opened by EO during 21 July–31 July.

A foot survey of Bodenburg Creek counted 900 sockeye salmon in 2022, which was significantly above the 2013–2022 average of 578 fish (Table 36).

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<sup>11</sup> https://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2016-2017/jointcommittee/5aac39.pdf.

<sup>&</sup>lt;sup>12</sup> Susitna Sockeye Salmon Action Plan

During 2023, a weir was operated to count sockeye salmon escapement into Larson Lake, which drains into the Talkeetna River via Larson Creek (Susitna River drainage). Weirs on Chelatna Lake (Lake Creek) and Judd Lake (Talachulitna River) were not operated in 2023 due to budget reductions. On Larson Creek, water levels were favorable toward consistent daily fish passage and fishing success throughout the season. The Larson Creek SEG of 15,000–35,000 sockeye salmon was exceeded on August 1 with a final count of 38,069 fish (Table 35). No management actions were implemented during the 2023 season.

In 2023, escapement goals for sockeye salmon were exceeded at Fish Creek with 44,985 fish (Table 35). The 2023 escapement of Bodenburg Creek was 513 sockeye salmon (Table 36). And on 1 August 2023, sport fishing was allowed 7 days per week and the bag limit increased to 6 per day and 6 in possession on Fish Creek for sockeye salmon.

#### **RAINBOW TROUT FISHERIES**

#### **FISHERY DESCRIPTION**

The majority of wild rainbow trout angling occurs in KAMU and ESMU. Wild rainbow trout fisheries of the ESMU extend from Willow Creek north along the Susitna River as far as Portage Creek and include Talkeetna River and the relatively smaller tributaries of the Chulitna River and East Fork Chulitna River. Most tributaries of the ESMU are coldwater streams originating in the Talkeetna Mountains. Access is primarily via the George Parks Highway and by jet boat. The WSMU includes tributaries of the Yentna River and all streams entering the Susitna River from the west (Figure 3). WSMU tributaries are a mix of streams either originating out of lake systems or from the Alaska Range. Access to these fisheries is by raft, power boat, or airplane. Because of the shallow nature of many of the westside streams, drop-off float trips are common. Many lodges accommodate anglers fishing the WSMU.

#### FISHERY MANAGEMENT AND OBJECTIVES

Management of wild rainbow trout in the NCIMA has undergone numerous changes. A statewide management plan (5 ACC 75.220) and policy (5 ACC 75.222) for the management of sustainable wild trout fisheries was adopted by the BOF in March 2003 as a means of uniformly managing wild trout stocks across Alaska (Appendix C1). The goal of the policy is to protect the largely intact wild trout populations unique to Alaska by conservatively managing for optimal sustained yield. Under the optimal sustained yield concept, fishery benefits including quality of experience, diversity of opportunity, conservative consumptive harvest opportunity, and economic benefits are considered while maintaining healthy stock status (e.g., biologically desirable size compositions and abundance levels) and genetic diversity. Conservative management of wild trout in the NCIMA follows these standards: a bag and possession limit of 2 trout of which only 1 may be over 20 inches in total length with an annual limit of 2 trout over 20 inches in total length. Beginning in 1987, prior to the development of statewide management standards, wild rainbow trout fisheries of NCIMA were managed under the conservative yield concept, aimed at maintaining historical size and age compositions and abundance.

In addition, many tributaries or sections of tributaries in the NCIMA are designated as rainbow trout special management waters, either as trophy rainbow trout waters or as catch-and-release-only waters. A major portion of the ESMU, from the junction of the Susitna and Talkeetna Rivers upstream to Devils Canyon, has been managed for trophy-sized trout (trout over 20 inches) since 1987. Under this strategy, only 1 trout 20 inches or more in total length is allowed daily with a

seasonal limit of 2 trout over 20 inches. All trout less than 20 inches must be released immediately. An unbaited, single-hook lure requirement complements this strategy.

Catch-and-release rainbow trout fisheries include the Talachulitna River, most of the Lake Creek drainage, much of the Deshka River, the Fish Creek drainage located within the Talkeetna River drainage, the North Fork of the Kashwitna River, and Willow and Montana Creeks. Unbaited, single-hook lures are mandatory in all catch-and-release waters.

Wild trout fisheries are not supplemented with hatchery trout in the Susitna River drainage. Past public testimony has suggested little interest in the use of hatchery fish to augment wild stocks and the current stocking policy supports the public's stance. Stocked rainbow trout are generally managed for maximum yield (see the Stocked Fisheries section above).

In 1997, Willow and Montana Creeks, previously the largest producers of rainbow trout harvest of the ESMU became catch-and-release fisheries. This accounted for part of the large drop in harvest for the ESMU from previous years. These 2 fisheries, along with the Talkeetna River, dominate ESMU catch (Table 37).

#### RAINBOW TROUT FISHERIES RECENT PERFORMANCE

The 2022 harvest of rainbow trout in the Knik Arm Management Unit was 11,450 fish (Tables 38 and 39). The 2017–2021 average harvest for this stock was 8,684 fish (Tables 38 and 39). Most of the rainbow trout harvest in 2022 in the KAMU was from stocked lake fisheries: the Kepler Lake complex (2,865 fish) and Memory Lake (1,438 fish), followed by Finger Lake (954 fish), and Lucille Lake (427 fish; Tables 38 and 39).

Rainbow trout catches in KAMU during 2022 were highest at Kepler Lake complex (10,195 fish) and Finger Lake (5,490 fish), followed by Memory Lake (3,297 fish), and Wasilla Lake (2,399 fish; Tables 40 and 41). Total catch for 2022 in the KAMU was 42,085 fish (Tables 40 and 41), which was just shy of the 2017–2021 average of 48,454 fish.

In the ESMU, the 2022 harvest was 236 rainbow trout, which was below the 5-year ESMU average of 751 fish (Table 37). The 2022 WSMU harvest of 253 fish was below the 5-year average of 301 fish (Table 42).

The 2022 catch for the ESMU was 22,601 rainbow trout; this was less than the 2017–2021 average of 39,404 fish (Table 43). The 2022 WSMU catch of 16,112 fish was higher than the 2017–2021 average of 10,243 (Table 44).

Catch from WSMU fisheries is dominated by Lake Creek (Table 44). During 2022, an estimated 44 rainbow trout were harvested in Lake Creek from a catch of 4,375 fish (Tables 42 and 44). The Talachulitna River drainage, which is a catch-and-release-only fishery, produced a catch of 7,583 rainbow trout (Table 44). It is believed that northern pike predation is responsible for the decline in Alexander Creek rainbow trout catches since 1990; there was a reported catch of zero in 2022 and the 2017–2021 annual average catch is 47 rainbow trout. (Table 44). Northern pike suppression efforts have been instituted since 2010 on this system (see *Northern Pike Fisheries* section).

## NORTHERN PIKE FISHERIES

#### FISHERY DESCRIPTION

Northern pike are not indigenous to the NCIMA although they are indigenous north of the Alaska Range. They were illegally introduced into the area during the early 1950s. Since then, northern pike have expanded their range both naturally and through subsequent illegal stockings. They have been reported in more than 100 lakes and more than a dozen tributaries of the Susitna River (Sweet and Rutz 2001). Prior to about 1992, several of these lakes consistently produced northern pike in the trophy-class range (greater than 40 inches or 15 lb for catch-and-release honorary certificates), and it was common to find fish weighing up to 20 lb and occasionally over 30 lb.

The potential for northern pike to proliferate in the Susitna River drainage is immense. Most of the habitat suitable to northern pike is found within the lower-lying WSMU. The headwaters of the Deshka River (Petersville Road) across the Kahiltna River to Hewitt Lake, then down to the mouth of the Susitna River, encompasses areas where most of the northern pike populations and habitat exist. In the KAMU, most northern pike habitat exists in a triangle created by the Susitna River and Parks Highway south of Willow (Figure 2). This area includes the Nancy Lake, Big Lake, and the Little Susitna River drainages, and lakes of the Susitna Flats, such as Flathorn and Figure Eight Lakes. Growing or even new northern pike fisheries are expected in these areas as northern pike continue colonization of the NCIMA. Northern pike were documented in Big Lake and Nancy Lake in 2005. The amount of available northern pike habitat in ESMU waters is sparse when compared to that of the WSMU or KAMU. Regardless, northern pike have been documented or reported in some of the lakes in the ESMU (Appendix D1).

#### FISHERY MANAGEMENT AND OBJECTIVES

The management objective for this fishery is to maximize harvest opportunity. The majority of the NCIMA does not have a bag or possession limit for northern pike. Note that this contrasts with other areas of Alaska where northern pike are indigenous and are managed conservatively.

In 1997 and 2002, the BOF liberalized harvest methods in many lakes within the NCIMA where northern pike populations were pervasive (Appendix B4) by allowing use of 5 lines while fishing through the ice. Five-line areas were further expanded at the 2008 BOF meeting with the addition of several tributaries of the Susitna River drainage that were thought to contain mostly northern pike. Additional water bodies may be added to this list as northern pike gain strongholds in new areas through continued range expansion.

In 1998, the BOF adopted a slot limit regulation for Alexander and Trapper Lakes to provide anglers the opportunity to catch large fish. The daily bag limits were set as follows: for northern pike less than 22 inches in total length, there was no limit; for northern pike between 22 and 30 inches, there was no retention; and for northern pike over 30 inches, the limit was 1 per day. The objective was to remove fish less than 22 inches in length from the population while protecting fish in the 22–30 inch range, allowing them a chance to attain a larger size when they would again be available for harvest. In 2002, the slot limit was repealed for Trapper Lake when it was determined that only Alexander Lake would be used to evaluate the effectiveness of a slot limit management strategy. Evaluation took place in 2008. Length frequencies were found to be similar between northern pike sampled in 1995–1996 and those sampled in 2008. The slot limit may have maintained the historical size structure, providing continued opportunity to harvest trophy-sized northern pike, whereas liberalized regulations on other popular lakes including Flathorn Lakes

have generally resulted in low numbers of large northern pike. Both liberalization and limits can result in angler dissatisfaction because liberal regulations tend to result in high abundance of smaller northern pike whereas a slot limit allows a harvest of mostly small northern pike (less than 22 inches). To remedy dissatisfaction with the slot limit, in 2009 the BOF met out of the 3-year cycle to change the slot limit to a size limit of 27 inches. This management strategy allowed unlimited harvest of northern pike less than 27 inches in total length and a daily bag limit of 1 northern pike over 27 inches in length. At the regularly scheduled 2011 BOF meeting, the size limit was repealed and unlimited harvest of northern pike was allowed on Alexander Lake. Special provisions were added to Big and Nancy Lakes to use bait from November 1 to March 15 to target northern pike through the ice. The BOF also changed area regulations to increase harvest by making it illegal to release northern pike back into the water alive in all Susitna drainage and WCIMU waters.

Efforts are made annually to verify the suspected existence of northern pike in certain waters around NCIMA. Northern pike have been documented in Anderson and King Lakes, which are intermittently connected to the Cottonwood Creek system. ADF&G has had anecdotal reports of northern pike in Jim Creek, but their presence has not been documented. Because the Cottonwood and Jim Creek systems have ideal northern pike habitat, salmonid populations would probably be severely affected by colonization. The Little Susitna River has limited northern pike habitat, so the negative effects to salmonid stocks may be limited there, except for the sockeye salmon production that occurs in Nancy Lake. Areas that once contained healthy fish populations but that now contain mostly northern pike include Alexander Lake and all inlet streams, Fish Creek of the Nancy Lake canoe system, Fish Creek of Kroto Slough, Fish Lake Creek of the Yentna River, and Three Mile River and lakes of WCIMU.

Future management of northern pike in the NCIMA will follow guidelines and strategies outlined in the Management Plan for Invasive Northern Pike in Alaska (ADF&G 2007) implemented in 2005, and the Alaska Aquatic Nuisance Species Management Plan (Fay 2002). In 2010, a regional effort was made to prioritize northern pike waters in the Matanuska–Susitna Valley, Anchorage, and Kenai areas for eradication or suppression. Prioritization was based on many factors, including threat to species existence, threat to an existing fishery, the magnitude of the fishery, economic impact, cultural significance, feasibility, probability of success, etc. <sup>13</sup> All waters have not yet been prioritized, although Alexander Creek was fully evaluated using this priority matrix and rated a number-one priority for suppression. Legislative funding was secured to initiate a full-scale gillnetting effort on side channel sloughs of Alexander Creek beginning in 2011. A history of northern pike in the Alexander Creek drainage has been recorded, and studies of impacts to anadromous and resident fish species have been conducted within this system (Oslund and Ivey 2010: Appendix C). To date (2023 field season), 32,266 northern pike have been removed from the Alexander Creek system (2,000 were removed during the feasibility study in 2009–2010) as a result of suppression efforts (Parker Bradley, Fishery Biologist, ADF&G, Palmer, personal communication).

#### NORTHERN PIKE FISHERIES RECENT PERFORMANCE

The estimated harvest of northern pike in the NCIMA during 2022 season was 7,517 fish and the 2017–2021 average harvest was 11,662 fish (Table 45). The KAMU and WSMU each accounted

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Region II Invasive Northern Pike Priorities. Memorandum. Alaska Department of Fish and Game, Division of Sport Fish, Anchorage.

for the majority of the harvest, with the remainder from the ESMU and WCIMU (Table 45). Nancy Lake Complex and Anderson and King Lakes (Cottonwood Creek) contributed the majority of the KAMU harvest in 2022 (Table 46). The Deshka River and Fish Creek drainages were the main producers of northern pike harvest in the WSMU in 2022 (Table 47). Estimated catch of northern pike in the NCIMA during 2022 was 10,052 fish, which was below the 5-year average of 15,194 (Table 45).

#### STOCKED LAKE FISHERIES

Currently, 86 lakes in the NCIMA are stocked on an annual or biennial basis. These lakes range from 2 to 362 surface acres and are stocked with a variety of sizes and species of game fish including rainbow trout, nonanadromous coho and Chinook salmon, Arctic char, and Arctic grayling.

In most cases, stocked landlocked lakes represent new fisheries because game fish were not present before stocking occurred. Stocked lakes benefit anglers and related businesses by providing diverse, year-round fishing opportunities and by diverting angling pressure from wild stocks. Most stockings are directed toward road-accessible lakes (Appendix E1) that tend to draw entire family groups for some combination of fishing, camping, picnicking, boating, snow machining, and ice skating. Many lakes have additional restrictions on motor use, access, and quite hours listed in lake management plans established by the Matanuska–Susitna Borough (Appendix E1).

#### **CURRENT STOCKING PROGRAM**

Rainbow trout, coho salmon, Arctic char, and Chinook salmon are now the primary species used in the ADF&G stocking program. Rainbow trout composed 80% of all fish stocked in landlocked lakes within the NCIMA in 2021–2022. Annual releases of all species during 2022 totaled 1,292,238 fish (Table 48).

Most rainbow trout released into NCIMA waters are fingerlings. Most fingerlings weigh 3–4 g and are released in June or early July. Catchables weigh around 100 g and are stocked in lakes without indigenous fish to increase angling opportunities and help maintain good catch rates in heavily fished lakes. Nearly 15% of the rainbow trout stocked in the NCIMA are catchable size at introduction. Anglers expended a total of 15,493 angler-days to catch 21,786 rainbow trout in 2022 (Table 49).

Nonanadromous coho salmon are normally stocked as fingerlings in May at about 3–5 g each. These fish achieve a harvestable size (6 to 11 inches) at age 2, the year following release. Most coho salmon are either harvested or die after becoming sexually mature by age 3. Stocked coho salmon support diverse winter fishing opportunities in the NCIMA.

Historically, Arctic grayling were stocked in early summer as "subcatchables" (below catchable size) weighing up to 70 g. The first year Arctic grayling catchables were available from the new William Jack Hernandez Sport Fish Hatchery for stocking was in 2013; these fish were 100 g at release. Catch rates were expected to improve with these larger stocked fish. However, the grayling program was cut during 2014–2017 due to budget cuts but brought back on line 2018–2020 when funding became available again. Anglers only caught 26 grayling in 2022, which was down significantly due to program cuts (Table 49).

Chinook salmon are stocked in early October as landlocked catchables, weighing about 100 g, providing winter ice fishing opportunities in 4 heavily fished lakes. Anglers caught 3,094 Chinook

salmon in 2022 (Table 49). Chinook salmon are easily caught, and lakes stocked with Chinook salmon produce successful angler-days. Lakes stocked with Chinook salmon are popular youth fisheries for this reason.

Arctic char were stocked in 12 lakes as triploid catchables about 100 g at release, providing more diversity for sport fishing (Table 50). Arctic char brood weighing 1,300–2,200 g were stocked late October–early November in 3 lakes (Table 50). On average, approximately 300 brood (diploid) Arctic char are stocked annually.

# FISHERY MANAGEMENT AND OBJECTIVES

Presently there are 3 lake management plans addressing stocking for NCIMA lakes: *Finger Lake Management Plan, Matanuska Lakes Complex Management Plan,* and *Matanuska-Susitna Valley Small Lakes Management Plan*<sup>14</sup>.

The primary objective of the stocking program is to provide additional fishing opportunities in a cost-effective manner on a sustainable basis by stocking lakes with game fish that are indigenous to Alaska. An additional objective is to reduce effort on the area's wild stocks and ensure that stocking does not negatively impact wild stock genetics or other fisheries. All stocking is conducted in accordance with guidelines set forth in the *Statewide Stocking Plan for Sport Fisheries*<sup>15</sup>.

Stocked landlocked lakes fall under the sustained yield management concept. Bag and possession limits under this management concept are 5 rainbow trout, only 1 over 20 inches, with an annual limit of 2 fish over 20 inches, except in the stocked lakes of the Knik Arm and Susitna River areas, where the annual limit is 10 rainbow trout 20 inches or longer. Although stocked lakes are primarily managed for put-and-take fisheries, 3 stocked lakes (Long Lake in the Kepler–Bradley complex, Wishbone Lake, and X Lake) have been established for catch-and-release fishing. These 3 lakes allow only unbaited, artificial lures, and are closed November 1 to April 30.

Future management of stocked lakes has 2 main issues:

- 1) Northern pike have been illegally stocked in local lakes. An invasive species program is currently underway (see northern pike section of this report) with a goal to control or eradicate northern pike in stocked lakes and to prevent future illegal stockings. The alternative to northern pike control is to discontinue or alter stocking on a case-by-case basis. Differences in lake structure with respect to available northern pike habitat and deepwater refuges for stocked species warrant different approaches to management. For example, due to the presence of northern pike, stocking in Big and Little No Luck lakes was discontinued and stocking has been altered and limited to fully landlocked catchable fish only in South Rolly, Prator, and Memory lakes.
- 2) The second issue is ongoing in NCIMA. In the past 20 years, the Matanuska–Susitna Valley population has increased enormously. Subdivisions have been developed around lakes that once had no development and very little use. Now sport fishing, wildlife viewing, and jet skiing are new activities on many of these lakes. Increasing numbers of conflicts

ADF&G Region II Statewide Stocking Plan for Sport Fish 2019-2023, 2019 Update <a href="https://www.adfg.alaska.gov/static/fishing/pdfs/hatcheries/19region2.pdf">https://www.adfg.alaska.gov/static/fishing/pdfs/hatcheries/19region2.pdf</a>, accessed January 2024).

<sup>&</sup>lt;sup>15</sup> ADF&G statewide stocking plan, <a href="http://www.adfg.alaska.gov/index.cfm?adfg=fishingsportstockinghatcheries.stockingplan">http://www.adfg.alaska.gov/index.cfm?adfg=fishingsportstockinghatcheries.stockingplan</a>, accessed January 2024.

between lakefront owners and other users concerning noise and boat wakes has led to the creation of *Matanuska–Susitna Borough Lake Management Plans* for a number of lakes (Appendix E1). These plans were developed through a public meeting process that determined prohibited activities for each lake. As the population continues to increase, the number of management plans that limit use of lakes will increase as well.

## **SPORT FISHERY RECENT PERFORMANCE**

In 2022, 77 lakes were stocked with 738,657 game fish (Table 48). The majority of these lakes are located in the KAMU and the remainder in the ESMU. Releases in 2022 included 631,831 rainbow trout, 76,512 coho salmon landlocked fingerlings, and 30,314 Arctic char (Table 48).

An estimated 15,493 angler-days of participation resulted from the area's landlocked stocking program in 2022 (Table 49), excluding effort at lakes having both stocked and indigenous game fish. The 2022 catch from stocked landlocked lakes included an estimated 21,786 rainbow trout, of which 5,763 (26%) were harvested; 3,094 landlocked salmon, of which 23% were harvested and 509 Arctic char, of which 18% were harvested (Table 49).

The Kepler Lake Complex (including Kepler, Bradley, Canoe, Echo, Irene, Long, Matanuska, and Victor lakes) supported 4,932 angler-days of effort. Finger Lake supported 4,799 angler-days of effort (Table 49). Collectively, these 2 sites yielded approximately 40% of the effort associated with stocked landlocked lakes within the NCIMA<sup>16</sup>.

Rainbow trout and landlocked Chinook salmon dominate catch in stocked lakes. In 2022, these 2 species composed the majority of the stocked lakes catch (Table 49).

## PERSONAL USE AND SUBSISTENCE FISHERIES

# **FISHERY DESCRIPTIONS**

The current personal use fisheries within the NCIMA include a sockeye salmon dip net fishery in Fish Creek, a dip net fishery for Alaska residents 60 or older on the Beluga River, a dipnet fishery on the lower Susitna River, and a personal use eulachon (*Thaleicthys pacificus*) fishery, the majority of which takes place in the Susitna River. There is also a small harvest of eulachon (smelt) in the Knik Unit at the mouth of Fish Creek (Table 51).

Subsistence fisheries include the Yentna River subsistence fish wheel fishery and the Tyonek subsistence fishery. The Yentna subsistence fishery occurs in the mainstem Yentna River from its confluence with Martin Creek upstream to its confluence with the Skwentna River and is prosecuted only by fish wheel. The Tyonek subsistence fishery occurs adjacent to the community of Tyonek; harvest occurs by gillnets.

#### FISHERY MANAGEMENT AND OBJECTIVES

In 2002, the SEG for sockeye salmon on Fish Creek was changed from a point goal of 50,000 fish to a range of 20,000–70,000 fish and the Fish Creek dip net fishery was modified under the *Upper Cook Inlet Personal Use Salmon Fisheries Management Plan* (5 AAC 77.540). The commissioner opened the fishery from July 10 through July 31 if ADF&G projected the escapement of sockeye

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Alaska Sport Fishing Survey database [Internet]. 1996—present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish [cited December 2019]. Available from: <a href="http://www.adfg.alaska.gov/sf/sportfishingsurvey/">http://www.adfg.alaska.gov/sf/sportfishingsurvey/</a>

salmon into Fish Creek to be above the upper end of the escapement goal of 20,000–70,000 fish. Prior to 2002, the fishery was open until closed by EO.

In 2017 at the Upper Cook Inlet BOF meeting, the SEG for sockeye salmon on Fish Creek was changed from a goal of 20,000–70,000 fish to 15,000–45,000 fish and the commissioner may open, by EO, the personal use dip net fishery in Fish Creek from July 15 through July 31 if ADF&G projects that the escapement of sockeye salmon will be more than 35,000 fish.

Participants in the fishery must obtain an Upper Cook Inlet personal use permit, which also includes the Kenai River and Kasilof River personal use dip net fisheries, and the Kasilof River set gillnet personal use fishery. The annual limit is 25 fish for the head of household plus 10 fish for each additional member of the household and is inclusive of all UCI personal use fisheries. Permits must be returned with the total catch recorded. The closing date is set at July 31 to limit the number of coho salmon harvested.

The management objective for the Fish Creek personal use fishery is to allow escapement of sockeye salmon along the entire course of the run while harvesting fish in excess of spawning needs. There are no specific management objectives for the personal use eulachon fishery. All fisheries are managed to provide sustained yield.

Management of Fish Creek sockeye salmon has undergone many changes in conjunction with an observed decline in total escapements in recent years. During the February 2002 BOF meeting, Fish Creek sockeye salmon were designated a stock of yield concern after demonstrating a chronic inability to meet the escapement goal (50,000 fish at the time) over the previous 5 years. At the same meeting, an SEG of 20,000–70,000 fish was recommended based on wild fish (prehatchery) escapements from 1938 to 1978 (Bue and Hasbrouck *Unpublished*). An action plan was developed, as directed by the BOF in 2002, to modify current land use patterns that may adversely affect fish habitat resource values in the Fish Creek watershed through education, increased community planning involvement, escapement monitoring, and research toward the goal of achieving the SEG. Specific actions recommended for achieving this objective may be found in Sweet et al. (2004). During the February 2011 BOF meeting, the BOF determined a personal use fishery to be opened when ADF&G projects the escapement to exceed 50,000 sockeye salmon.

Litchfield and Willette (2002) found dissolved oxygen and nutrient concentrations similar to levels experienced in the early 1980s, suggesting no relationship to the decline in survival of Fish Creek sockeye salmon. Aggregate survival (hatchery and wild fish) to the smolt life stage was one-quarter the survival rates of other sockeye salmon-producing systems during the late 1980s. Further, wild survival to the smolt stage was lower than hatchery-origin fish. Two plausible explanations for the overall decline in wild stock productivity were identified: (1) a cofferdam at the Big Lake outlet could have reduced productivity of the subpopulation spawning below the dam and (2) Big Lake Hatchery operations prevented sockeye salmon from entering Meadow Creek above the hatchery in an effort to reduce potential spread of disease (Litchfield and Willette 2002). The cofferdam was removed in 2004 to improve passage of fry into the lake (Hasbrouck and Edmundson 2007). The Fish Creek stock was reevaluated at the 2005 BOF meeting where it was determined to no longer be a stock of yield concern. The Fish Creek personal use fishery was open 2017 to 2023.

The BOF established the Skwentna River personal use salmon fishery in March 1996. As a result of actions by the State of Alaska Supreme Court and the BOF, it was reinstituted as the Upper Yentna River subsistence salmon fishery beginning in 1998. The open season for this subsistence fishery is from July 15 through July 31, from 4:00 AM until 8:00 PM on Mondays, Wednesdays,

and Fridays. During the February 2011 meeting, the BOF determined 400–750 salmon other than Chinook salmon are reasonably necessary for subsistence uses in the Yentna River drainage.

In May of 2018 by emergency regulation, the BOF modified the Upper Yentna River subsistence salmon fishery to retention of Chinook salmon and the fishery was held June 1–June 30 and July 15–August 7. Fishing was allowed 4:00 AM until 8:00 PM on Mondays–Fridays. The household limit for Chinook salmon was 5 for the head of household and 2 Chinook salmon for each additional member of the household in addition to 25 salmon, other than Chinook salmon, for the head of the household, and 10 salmon, other than Chinook salmon, for each additional member of the household.

Regulations for a Tyonek subsistence fishery were established in 1980 and amended in 2011. Participants are allowed to harvest all salmon species. Residents of Tyonek are the major participants in the fishery. The season starts on May 15 and continues through October 15. The fishery is open May 15–June 15 on Tuesdays, Thursdays, and Fridays, from 4:00 AM to 8:00 PM. From June 16 through October 15, fishing shifts to Saturdays only. This fishery is prosecuted by gillnet 10 fathoms in length by 45 meshes deep, with 6-inch mesh. During the February 2011 meeting, the BOF determined 700–2,700 Chinook salmon and 150–500 salmon other than Chinook salmon are reasonably necessary for subsistence use in the Tyonek Subdistrict.

During 2008, the BOF opted to create a personal use fishery for residents over the age of 60 in the Beluga Area. This fishery was predicated on the loss of fishing opportunity as a result of northern pike predation on sockeye salmon in Three Mile Creek, lack of access to area fisheries, and poor Chinook salmon returns to WCIMA streams. The fishery occurs annually from July 10 to August 31. A permit holder may obtain his or her annual limit of 25 salmon per head of household and 10 additional salmon per listed dependent. No Chinook salmon may be retained and a cap of 500 other salmon is enforced. All Chinook salmon caught must be released immediately. This permit is only good for the Beluga River and does not allow the permittee to participate in any other Alaskan personal use fishery or fish by proxy.

In 2020, the BOF passed regulations opening a portion of the lower Susitna River to personal use dipnet fishing. This fishery falls under the Upper Cook Inlet personal use permit, along with Kenai, Kasilof, and Fish Creek personal use fisheries. This dipnet fishery runs from July 10 to July 31 with fishing open only on Wednesdays and Saturdays from 6:00 AM until 11:00 PM. The open dipnetting area is located between ADF&G regulatory markers approximately 1 mile downstream of Susitna Station, downstream to ADF&G regulatory markers located near the northern tip of the Bell Island-Alexander Creek cut off. Dipnetting from a boat or from shore is permitted in this open area. Furthermore, since the start of this dipnet fishery in 2020, ADF&G has closed dipnetting in the vicinity of Anderson Creek of the lower Susitna River each year. The area closed to dipnetting is identified by ADF&G markers located approximately 50 feet upstream and 300 feet downstream of the mouth of Anderson Creek. In addition, dipnetting is not allowed in Anderson Creek. There is a proposal for the upcoming BOF meeting to make this EO permanent. The annual limit is 25 fish for the head of household plus 10 fish for each additional member of the household and is inclusive of all Upper Cook Inlet personal use fisheries. No retention of Chinook salmon is allowed. Any northern pike caught must not be released back into water. Permits must be returned with the total catch recorded. The closing date is set at July 31 to limit the number of coho salmon harvested.

#### PERSONAL USE FISHERIES RECENT PERFORMANCE

With runs projected to exceed the upper end of the escapement goal, the personal use fishery on Fish Creek was opened in 2022 and 2023 due to strong runs enumerated by the Fish Creek weir in prior years. The total weir count for sockeye salmon in 2022 was 58,333 fish and 44,985 fish were counted in 2023 (Table 34). Annual harvest for the Fish Creek dipnet fishery was a total of 37,634 salmon in 2022 and 22,763 salmon in 2023. Sockeye salmon were the target species; there were 35,656 harvested in 2022 and 20,891were harvested in 2023 (Table 52). The 2004–2023 average harvest of sockeye salmon was 12,876 fish (Table 52).

Annual harvest in the upper Yentna River subsistence fishwheel fishery during 2022 was 342 fish. Average harvest per permit holder during 2022 was 19 fish. Sockeye salmon are the target species, although some coho, pink, and chum salmon were also harvested. Chinook salmon harvest was 9 fish in 2022 (Table 53). No Chinook salmon were harvested in 2023 and a total of 412 salmon other than Chinook salmon were harvested (Table 53).

The 2013–2022 average harvest for the Beluga personal use salmon fishery was 98 fish (Table 54). Sockeye and coho salmon made up the majority of the harvest (Table 54).

Chinook salmon dominate the harvest in the Tyonek subsistence fishery, with a smaller harvest of coho and sockeye salmon. Few pink and chum salmon are harvested. The number of permits issued in 2021 was 47, which was below the 2017–2021 average of 73 (Table 55). The total number of salmon harvested in 2021 was 1,204 fish, of which 1,022 were Chinook salmon (Table 55). The number of permits issued in 2022 (35) was the lowest on record. A total of 1,906 salmon was harvested; 954 were Chinook salmon.

No eulachon were reported harvested in the KAMU for 2021 and 2022 (Table 51). The 2017–2021 average harvest in the WSMU was 1,449 eulachon (Table 51). Inseason observations of run strength by staff in 2021 and 2022 indicated good runs. This fishery may be the most under-utilized personal use fishery in the Susitna River drainage.

The lower Susitna River personal use dip net fishery began in 2020. Fishing effort in 2022 and 2023 mostly mirrored previous effort, with relatively low participation (236 and 264 angler-days, respectively). Fishing success has increased incrementally since 2021. Annual harvest in the lower Susitna dipnet fishery during 2022 was a total of 3,334 salmon. Sockeye salmon are the target species with 2,201 harvested, followed by coho salmon (727); some pink and chum salmon are harvested as well. Harvest in 2023 was a total of 5,138 salmon (including 3,722 sockeye salmon and 929 coho salmon), which was greater than the 2020–2022 average of 3,276 fish (Table 56).

# **EDUCATIONAL FISHERIES**

#### FISHERY DESCRIPTION

The first educational fishery, the 1989 Kenaitze Tribal fishery (on the Kenai Peninsula), originated as a Federal Court-ordered subsistence fishery resulting from extensive legislation and litigation related to both state and federal interpretation of subsistence. Prior to the 1993 fishing season, the Alaska Superior Court, in negotiations with ADF&G and the Kenaitze Tribe, ordered ADF&G to issue educational fishing permits.

The Knik Tribal Council and the Native Village of Eklutna were first issued educational fishing permits for the 1994 season. These educational fisheries, originally ordered as interim fisheries

until the court cases were decided, have been applied for and renewed by ADF&G annually. The Tyonek Subsistence Camp was issued permits from 1998 to 2000 and 2008–2010. Educational fishery permits were issued to the Big Lake Cultural Outreach Program from 2005 to 2018, and 1 permit was issued to the Intertribal Native Leadership group in 2006. The current educational fisheries are limited to certain areas and periods of operation as described in the following Fishery Management and Objectives section. In general, the communities of Eklutna and Knik fish adjacent waters. Educational fishing also takes place along the north shores of Goose Bay and Point MacKenzie and on Fire Island.

#### FISHERY MANAGEMENT AND OBJECTIVES

The objective of this fishery is to implement the provisions of the permit. Standards, general conditions, and requirements of an educational fishery program were established by the BOF and are administered under Chapter 93 of the Alaska Administrative Code (5 AAC 93.200-235). The open fishing season is from May 1 to September 30. The fishery can take place at the discretion of the permit holder except in the Fish Creek Terminal Harvest Area during commercial fishery openings and on Mondays or Thursdays when commercial openings are scheduled in the Northern District between Point MacKenzie and the Little Susitna River and adjacent to Fire Island. Otherwise, the fishery may be prosecuted in waters of the Northern District between Point Mackenzie and Little Susitna River and adjacent to Fire Island, and in waters within 1 mile of average high water on the western shore of Knik Arm from the Goose Bay airstrip beach access road boat launch located on the north shore of Goose Bay to Fish Creek. The educational fishery may not occur in the tidal channel of Fish Creek or in Fish Creek. Permits are issued on an annual basis and must be renewed each year. Permit holders must submit a postseason summary to ADF&G as indicated in the specifications. A failure to meet specifications will result in nonrenewal of a permit. Council and Tribal objectives for the educational fisheries include teaching and preserving the cultural and traditional subsistence way of life.

Reports on the educational program, as required by each permit, have been submitted annually to the NCIMA biologist and compiled in the Area Management Report. Educational fishery salmon harvests are minimal and they do not affect inriver sport fisheries.

#### **EDUCATIONAL FISHERIES RECENT PERFORMANCE**

The Knik Tribal Council educational fishery salmon harvest in 2023 was 199 fish. The majority of the 2023 harvest was 91 sockeye salmon followed by 43 coho salmon (Table 57). Chinook harvest is not allowed.

The 2023 educational fishery conducted by Eklutna Native Village harvested 300 fish in 2023:198 sockeye, 36 chum, 63 coho, and 3 pink salmon. No Chinook harvest is allowed. The season took place from July 1 to September 30 (Table 57).

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# **TABLES**

Table 1.-Number of angler-days of sport fishing effort expended by sport anglers fishing Northern Cook Inlet Management Area waters, 2003–2022.

			Northern	1 Cook	Inlet Manage	ment A	rea				NCIMA		NCIMA
	KAMU		ESMU		WSMU	J	WCIMU	J a	NCIMA	Alaska	% of	Region II	% of
Year	Effort	%	Effort	%	Effort	%	Effort	%	total	total	Alaska	total <sup>b</sup>	Region II
2003	103,978	35	112,061	37	66,882	22	16,927	6	299,848	2,219,398	14	1,535,501	20
2004	113,528	36	107,689	35	72,721	23	17,809	6	311,747	2,473,961	13	1,709,671	18
2005	115,763	39	87,893	29	73,971	25	20,459	7	298,086	2,463,929	12	1,712,610	17
2006	119,795	41	85,029	29	73,700	25	15,771	5	294,295	2,297,961	13	1,605,852	18
2007	120,681	40	87,177	29	70,923	24	19,705	7	298,486	2,543,674	12	1,799,352	17
2008	136,572	48	85,755	30	47,061	16	16,627	6	286,015	2,315,601	12	1,622,920	18
2009	122,508	48	72,109	29	43,273	17	14,948	6	252,838	2,216,445	11	1,522,345	17
2010	106,281	46	63,025	27	48,298	21	14,512	6	232,116	2,000,167	12	1,371,492	17
2011	54,791	34	56,121	35	40,657	25	10,184	6	161,753	1,919,313	8	1,326,950	12
2012	58,673	37	50,521	32	40,255	25	10,682	7	160,131	1,885,786	8	1,252,263	13
2013	76,112	40	63,195	33	37,623	20	12,400	7	189,330	2,202,957	9	1,488,383	13
2014	97,254	45	63,308	30	41,596	19	12,192	6	214,350	2,309,853	9	1,571,650	14
2015	85,342	44	52,571	27	45,422	23	11,459	6	194,794	2,212,331	9	1,470,381	13
2016	82,553	44	56,195	30	35,497	19	11,702	6	185,947	1,982,300	9	1,314,668	14
2017	73,463	47	45,090	29	30,850	20	7,967	5	157,370	2,006,244	8	1,312,586	12
2018	72,352	49	39,184	26	25,492	17	11,262	8	148,290	1,878,009	8	1,245,253	12
2019	73,314	46	53,887	33	22,401	14	11,389	7	160,991	2,075,431	8	1,378,500	12
2020	90,533	52	50,997	29	22,498	13	10,387	6	174,415	1,566,516	11	1,124,785	16
2021	67,403	46	46,096	32	21,411	15	10,669	7	145,579	1,978,718	7	1,337,679	11
2022	62,112	48	39,169	31	19,875	15	8,816	7	129,972	1,827,809	7	1,204,994	11
Average													
2003-2021	93,205	43	67,258	31	45,291	20	13,529	6	219,283	2,134,137	10	1,458,044	15
2017-2021	75,413	48	47,051	30	24,530	16	10,335	7	157,329	1,900,984	8	1,279,761	12

Note: KAMU is Knik Arm Management Unit, ESMU is Eastside Susitna Management Unit, WSMU is Westside Susitna Management Unit, and WCIMU is West Cook Inlet Management Unit.

<sup>&</sup>lt;sup>a</sup> Data include saltwater effort from outside the North Cook Inlet Management Area, as reported in the Statewide Fishing Survey.

b ADF&G, Sport Fish Division, Southcentral Region (i.e., Region II) includes the following management areas: Anchorage Area, Bristol Bay, Kodiak–Aleutians, Lower Cook Inlet (Kenai), Northern Cook Inlet (Matanuska–Susitna Borough), Prince William Sound Area, Seward North Gulf Coast, and Upper Kenai Peninsula.

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Table 2.-Angler-days of sport fishing effort for the Knik Arm Management Unit by fishery, 2003–2022.

							Fresh wate	rs						
		* *					Big							
	Salt	Little Susitna	Knik	Eklutna	Wasilla	Cottonwood	Lake drainage	Finger	Kepler Lake	Big	Nancy Lake	Other	Other	
Year	waters	River	River a	Tailrace	Creek	Creek	streams	Lake	complex	Lake	complex	lakes b	streams	Total
2003	435	31,993	13,474	8,423	757	2,238	1,182	5,096	6,470	5,226	6,653	21,267	764	103,978
2004	184	33,819	19,342	9,588	1,079	3,282	2,029	4,713	6,958	4,430	5,501	21,954	649	113,528
2005	802	27,490	19,605	19,339	684	1,484	1,461	5,514	4,719	6,481	4,391	22,989	804	115,763
2006	323	28,547	25,271	20,465	869	3,867	948	6,055	5,684	5,616	7,279	14,225	646	119,795
2007	590	35,636	21,342	22,619	1,194	3,448	907	3,229	3,926	5,261	5,053	16,087	1,389	120,681
2008	325	31,989	27,874	20,586	1,394	2,718	1,343	7,715	8,264	7,326	4,958	21,426	654	136,572
2009	159	28,151	23,925	22,625	1,619	2,679	2,092	6,821	6,881	3,415	6,081	17,395	665	122,508
2010	124	24,846	16,140	14,708	2,354	2,064	2,966	4,821	5,594	4,369	8,736	18,867	692	106,281
2011	139	12,779	9,810	5,972	1,300	1,736	970	4,338	5,899	3,080	4,377	3,633	758	54,791
2012	c	10,115	7,474	5,475	506	884	1,343	2,439	3,161	4,151	3,096	19,596	433	58,673
2013	c	12,012	8,474	8,370	1,569	901	1,033	6,118	7,594	4,030	6,014	19,252	745	76,112
2014	c	13,636	9,376	13,443	1,258	1,522	2,095	8,176	12,066	7,349	4,616	22,702	1,015	97,254
2015	c	17,845	5,746	13,968	1,467	2,645	2,587	4,750	4,209	6,077	2,638	22,533	877	85,342
2016	c	16,168	5,406	16,007	548	3,471	1,598	5,162	8,194	2,608	3,511	19,240	640	82,553
2017	32	11,376	3,299	12,300	954	3,043	1,250	5,337	4,847	4,578	2,404	21,969	2,074	73,463
2018	54	10,948	6,045	13,485	681	1,981	2,896	3,734	5,111	7,474	2,648	16,077	1,218	72,352
2019	125	8,851	5,455	12,397	262	3,724	2,401	5,889	3,886	4,999	3,188	20,250	1,887	73,314
2020	152	11,350	5,954	9,883	348	3,644	4,154	4,097	8,749	6,610	9,677	24,943	972	90,533
2021	28	7,759	7,271	9,466	176	2,460	792	4,051	5,978	4,627	4,731	19,033	1,031	67,403
2022	179	6,563	6,519	4,611	363	1,020	2,465	4,799	4,392	2,887	7,837	19,989	1,488	63,112
Average														
2003-2021	248	19,753	12,699	13,638	1,001	2,515	1,792	5,161	6,221	5,142	5,029	19,128	943	93,205
2017–2021	78	10,057	5,605	11,506	484	2,970	2,299	4,622	5,714	5,658	4,530	20,454	1,436	75,413

<sup>&</sup>lt;sup>a</sup> Knik River and tributaries including Jim Creek.

b Includes effort for lakes and streams, 1977–1982.

c No data.

Table 3.-Angler-days of sport fishing effort for the Eastside Susitna River Management Unit by fishery, 2003-2022.

	Willow	Little	Kashwitna	Caswell	Sheep	Goose	Montana	Birch	Sunshine	Talkeetna	Other	Other	
Year	Creek	Willow	River	Creek	Creek	Creek	Creek	Creek	Creek	Rivera	streams <sup>b</sup>	lakes	Total
2003	29,668	4,815	5,028	3,018	12,878	2,965	20,794	666	3,616	19,335	4,387	4,891	112,061
2004	26,722	5,031	1,906	902	10,310	2,645	22,860	881	2,820	19,632	8,161	5,819	107,689
2005	24,181	6,566	1,626	2,395	8,521	2,039	16,083	1,356	4,089	16,172	1,902	2,963	87,893
2006	21,927	4,536	2,489	1,767	9,437	2,593	19,657	779	3,732	13,043	2,800	2,269	85,029
2007	22,139	7,126	1,099	1,260	10,156	621	18,111	414	3,098	18,025	2,947	2,181	87,177
2008	17,953	8,213	5,634	1,524	8,574	1,895	16,174	964	4,153	14,392	2,687	3,592	85,755
2009	19,019	4,105	3,897	1,859	9,248	1,640	14,084	698	1,749	10,669	2,322	2,819	72,109
2010	12,487	3,562	1,614	2,524	7,042	1,051	10,931	1,025	2,009	11,952	3,782	5,046	63,025
2011	10,949	1,282	3,444	822	5,868	717	8,644	578	1,314	11,212	8,530	2,761	56,121
2012	9,763	1,609	704	546	3,877	994	9,303	1,230	1,337	11,502	6,738	2,918	50,521
2013	12,337	2,668	1,345	774	5,268	674	12,089	865	1,141	11,471	10,968	3,595	63,195
2014	13,687	4,286	2,615	919	4,887	3,672	9,381	1,057	2,606	7,571	9,396	3,231	63,308
2015	12,068	1,934	1,157	380	3,885	733	10,291	149	1,327	10,693	5,714	4,240	52,571
2016	11,968	3,742	1,017	1,333	4,060	1,686	7,280	173	1,187	8,879	11,010	3,860	56,195
2017	10,943	1,527	854	374	3,392	339	8,242	95	1,724	7,520	7,078	3,002	45,090
2018	8,573	2,230	1,507	366	3,092	763	6,665	539	2,056	6,210	3,029	4,154	39,184
2019	12,519	2,169	531	696	3,568	1,902	12,980	381	1,152	8,683	4,758	4,548	53,887
2020	11,798	3,348	1,173	788	4,787	922	8,461	220	1,067	6,982	6,675	4,776	50,997
2021	13,354	1,804	738	682	4,170	897	7,404	274	1,502	6,454	7,316	1,501	46,096
2022	9,833	1,034	1,057	298	3,152	833	6,631	374	681	4,465	8,106	2,705	39,169
Average													
2003-2021	15,898	3,713	2,020	1,207	6,475	1,513	12,602	650	2,194	11,600	5,800	3,588	67,258
2017–2021	11,437	2,216	961	581	3,802	965	8,750	302	1,500	7,170	5,771	3,596	47,051

<sup>&</sup>lt;sup>a</sup> Including Clear Creek.

b Includes angler days from the Susitna River.

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Table 4.-Angler-days of sport fishing effort for the Westside Susitna River Management Unit by fishery, 2003-2022.

	Alex-								Tala-							
	ander	Deshka	Rabideux	Moose	Yentna	Peters	Lake	Fish	chulitna	Judd	Shell	Whiskey	Hewitt	Other	Other	
Year	Creek	River	Creek	Creek	River	Creek	Creek	Creeka	River	Lake	Lake	Lake	Lake	streams <sup>b</sup>	lakes <sup>b</sup>	Total
2003	6,855	24,904	520	c	1,866	681	19,857	3,320	4,391	c	c	c	c	3,614	874	66,882
2004	5,679	28,653	894	355	3,319	606	20,898	3,594	3,631	344	744	c	110	626	3,268	72,721
2005	3,907	26,638	365	19	5,524	961	21,844	3,438	4,740	c	1,082	c	539	3,720	1,194	73,971
2006	4,337	31,015	727	271	6,679	620	19,801	2,084	4,455	52	c	53	112	2,530	964	73,700
2007	2,666	34,659	289	67	5,647	1,779	13,486	981	6,704	107	663	c	74	2,298	1,503	70,923
2008	299	15,514	774	0	4,778	756	11,891	1,212	5,310	441	194	0	34	1,733	4,125	47,061
2009	2,660	10,532	586	283	3,860	1,358	12,693	1,169	3,855	18	200	0	198	1,432	4,429	43,273
2010	481	17,520	752	347	4,693	880	10,674	878	3,460	140	1,432	22	151	3,485	3,383	48,298
2011	931	13,206	386	122	4,511	851	11,520	92	2,482	105	601	0	50	3,669	2,131	40,657
2012	560	10,987	641	63	4,580	234	9,129	1,240	4,305	73	63	218	146	5,681	2,335	40,255
2013	1,180	9,673	c	642	3,179	519	13,101	752	2,945	206	251	581	272	2,076	2,246	37,623
2014	3,119	10,947	749	749	2,962	775	10,294	959	3,120	467	0	609	399	3,216	3,231	41,596
2015	1,109	11,296	745	28	4,330	907	11,657	1,542	5,409	90	76	56	52	3,885	4,240	45,422
2016	418	12,742	c	549	3,218	895	10,171	899	2,011	591	417	28	78	1,553	1,927	35,497
2017	1,168	10,748	604	71	3,409	839	6,183	559	2,302	63	181	0	36	3,170	1,517	30,850
2018	833	7,629	662	49	3,574	242	8,180	273	1,687	124	0	0	0	1,398	841	25,492
2019	470	3,728	310	67	2,836	36	7,664	457	1,556	126	787	117	0	2,168	2,079	22,401
2020	1,110	6,883	583	184	3,060	11	5,811	1,366	1,057	c	51	c	c	1,024	1,358	22,498
2021	145	4,172	185	62	3,132	731	7,801	360	1,138	43	56	c	c	1,719	1,867	21,411
2021	247		461	182	2,654	101	4,627	1,421		c c	c	39	c	2,185	513	
	241	5,934	401	162	2,034	101	4,027	1,421	1,511			39		2,163	313	19,875
Average	4.00-	4.5.000		21.		<b>-</b> 0.0	1001-	4 225	2.200	405	400	400		A	• • • • •	4.5.004
2003–2021	1,996	15,339	575	218	3,956	720	12,245	1,325	3,398	187	400	130	141	2,579	2,290	45,291
2017–2021	745	6,632	469	87	3,202	372	7,128	603	1,548	89	215	39	12	1,896	1,532	24,530

<sup>&</sup>lt;sup>a</sup> Fish Lake drainage (Yentna River drainage).

b May include effort from West Cook Inlet drainage waters.

c No data.

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Table 5.-Angler-days of sport fishing effort for the West Cook Inlet Management Unit by fishery, 2003–2022.

							Susitna		Big	Polly Cr.,		
	Chuitna	Beluga	Theodore	Lewis	Kustatan	Polly	R.–N.	South of N.	River	Crescent	Other	
Year	River	River	River	River	River	Creek	Foreland	Foreland	Lakes a	R. Beach	waters	Total
2003	2,422	b	618	310	3,915	b	945	2,517	3,497	386	2,317	16,927
2004	2,165	777	828	428	2,854	233	2,135	1,482	3,322	608	2,977	17,809
2005	2,053	233	669	310	2,649	b	2,423	1,194	5,365	2,000	3,563	20,459
2006	1,279	1040	337	228	2,515	78	3,155	1,955	4,957	b	227	15,771
2007	3,745	742	749	238	3,517	56	1,381	1,582	2,203	192	5,300	19,705
2008	1,805	499	525	222	3,416	359	580	1,857	2,837	201	4,326	16,627
2009	1,354	383	952	485	2,238	161	2,823	1,599	3,829	446	678	14,948
2010	441	656	595	340	2,152	92	1,710	2,048	4,859	644	975	14,512
2011	515	364	435	376	1,215	30	455	977	2,452	126	3,239	10,184
2012	549	349	117	18	1,949	44	641	1,277	3,908	125	1,705	10,682
2013	369	167	322	54	2,485	20	659	3,062	2,931	186	2,145	12,400
2014	439	266	185	27	1,497	112	1,942	3,076	3,949	276	423	12,192
2015	352	439	454	97	2,468	283	1,182	2,208	3,462	471	43	11,459
2016	44	22	1,169	209	1,519	104	2,875	1,812	2,914	618	416	11,702
2017	659	82	126	0	1,149	0	346	1,211	3,669	0	725	7,967
2018	447	623	453	124	1,945	57	2,578	1,920	3,005	57	53	11,262
2019	657	674	345	0	1,711	22	749	1,584	2,189	587	2,871	11,389
2020	449	239	246	0	2,307	22	1,038	1,631	1,309	275	2,871	10,387
2021	754	589	393	ND	1,520	ND	920	1,734	3,025	387	1,347	10,669
2022	15	229	1,120	ND	1,141	46	1,740	2,290	2,493	233	629	8,816
Average												
2003-2021	1,079	452	501	193	2,264	105	1,502	1,828	3,352	421	1,905	13,529
2017–2021	593	441	313	31	1,726	25	1,126	1,616	2,639	261	1,573	10,335

<sup>&</sup>lt;sup>a</sup> Big River Lakes encompasses Big River drainage, including Wolverine Creek.

b No data.

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Table 6.-Northern Cook Inlet Management Area sport harvest by management unit, 2003–2022.

			No	rthern C	ook Inlet Man	agemen	Area				NCIMA		NCIMA
	KAMU	J	ESMU	<u> </u>	WSMU	J	WCIMU	J	NCIMA	Alaska total	% of Alaska	Region II total	% of Region II
Year	Harvest	%	Harvest	%	Harvest	%	Harvest	%	Total	harvest	total	harvest	total
2003	68,332	37	41,764	23	52,462	29	21,416	12	183,974	3,052,136	6	2,177,555	8
2004	77,563	38	42,991	21	61,552	30	21,884	11	203,990	3,332,948	6	2,350,240	9
2005	67,036	40	35,066	21	49,444	29	17,936	11	169,482	3,235,176	5	2,173,207	8
2006	77,054	42	40,043	22	45,933	25	18,662	10	181,692	2,709,406	7	1,942,870	9
2007	60,293	40	30,763	21	35,021	23	23,537	16	149,614	3,032,493	5	2,123,212	7
2008	69,881	42	40,009	24	32,918	20	21,827	13	164,635	2,976,610	6	2,169,154	8
2009	63,310	45	34,813	25	27,325	19	16,304	12	141,752	2,951,263	5	2,139,793	7
2010	53,326	40	27,957	21	34,140	26	16,249	12	131,672	2,566,595	5	1,900,591	7
2011	32,385	33	22,198	23	32,589	33	10,989	11	98,161	2,677,077	4	1,979,899	5
2012	24,480	32	17,464	23	22,121	29	13,263	17	77,328	2,470,395	3	1,771,727	4
2013	37,650	34	25,630	23	32,577	30	13,281	12	109,138	2,941,908	4	1,972,619	6
2014	42,986	37	22,739	20	34,517	30	14,632	13	114,874	2,484,880	5	1,558,917	7
2015	45,474	38	24,448	20	31,373	26	18,980	16	120,275	2,628,932	5	1,558,917	8
2016	32,934	40	18,746	23	18,742	23	12,725	15	83,147	2,229,488	4	1,381,273	6
2017	25,628	32	22,016	27	22,619	28	11,080	14	81,343	2,208,527	4	1,381,273	6
2018	30,700	34	18,744	21	24,857	28	14,949	17	89,250	1,892,137	5	1,187,107	8
2019	30,474	32	27,393	29	22,682	24	15,456	16	96,005	2,376,262	4	1,600,349	6
2020	39,012	48	21,031	26	11,208	14	10,062	12	81,313	1,561,583	5	1,064,900	8
2021	28,476	32	25,444	29	19,822	22	14,635	17	88,377	2,643,780	3	1,730,733	5
2022	29,667	45	13,521	20	14,177	21	9,129	14	66,494	2,388,581	3	1,481,383	4
Average													
2003-2021	47,737	38	28,382	23	32,205	26	16,204	13	124,527	2,630,084	5	1,798,123	7
2017–2021	30,858	36	22,926	26	20,238	23	13,236	15	87,258	2,136,458	4	1,392,872	6

<del>2</del>8

Table 7.-Northern Cook Inlet Management Area sport fish harvest by species, 2003-2022.

			Salmo	n												
						Land-	Rainbow	Dolly	Arctic	Lake		Northern	White-			
Year	Chinook	Coho	Sockeye	Pink	Chum	locked	trout	Varden	grayling	trout	Burbot	pike	fish	Smelt	Other	Total
2003	28,220	73,479	22,708	2,276	4,402	5,905	21,887	4,375	1,942	858	1,346	8,024	283	7,498	771	183,974
2004	27,543	88,746	16,936	6,629	3,959	5,940	21,468	3,965	2,148	734	729	12,171	327	12,573	122	203,990
2005	28,682	75,309	11,381	3,460	3,364	6,685	15,695	2,999	1,119	404	1,357	11,306	807	3,068	3,846	169,482
2006	28,644	95,086	11,653	5,009	2,227	3,688	16,311	2,486	2,134	157	1,082	11,404	330	71	1,410	181,692
2007	25,413	67,842	19,864	3,069	1,749	1,754	12,288	4,927	1,756	643	911	8,156	449	744	49	149,614
2008	15,919	90,006	16,750	2,499	2,233	2,198	17,908	3,030	1,571	453	1,715	7,999	364	1,832	158	164,635
2009	11,156	76,871	19,712	5,942	2,557	1,321	9,547	2,467	2,124	244	303	8,488	66	880	74	141,752
2010	10,510	65,935	16,281	3,142	2,460	2,084	13,194	2,570	1,958	316	658	9,913	141	2,510	0	131,672
2011	9,712	36,299	13,873	2,015	2,880	842	10,729	1,989	804	564	308	11,089	112	6,763	182	98,161
2012	3,020	29,890	13,046	1,880	3,178	2,835	9,198	1,445	729	173	454	7,815	83	3,290	292	77,328
2013	2,940	46,064	17,112	3,391	1,979	1,850	10,911	2,142	1,502	199	580	18,764	0	1,704	0	109,138
2014	3,205	48,934	15,132	2,599	3,421	4,126	11,350	3,342	9,377	110	989	9,708	91	2,426	64	114,874
2015	5,627	59,883	13,119	3,123	3,039	679	11,288	2,087	1,568	282	969	17,465	34	1,015	97	120,275
2016	7,176	23,979	20,117	2,593	1,514	946	12,194	1,438	708	465	579	11,369	48	0	21	83,147
2017	3,493	34,657	12,316	2,856	2,994	2,433	10,554	1,197	653	14	379	9,094	0	650	53	81,343
2018	636	47,804	15,565	3,022	1,566	1,857	7,842	747	1,057	54	549	8,019	42	0	490	89,250
2019	692	39,051	19,311	5,725	1,795	1,314	7,821	1,147	300	280	730	12,594	8	5,218	19	96,005
2020	539	29,732	8,743	4,534	676	3,124	13,434	586	693	222	893	17,492	30	593	22	81,313
2021	1,237	40,262	12,435	7,225	1,058	1,198	10,326	699	764	98	516	11,113	10	1,436	0	88,377
2022	253	26,236	12,554	2,292	1,951	1,043	11,553	591	222	663	248	7,145	179	1,552	12	66,494
Average																
2003–2021	11,282	56,307	15,582	3,736	2,476	2,673	12,839	2,297	1,732	330	792	11,157	170	2,751	404	124,527
2017-2021	1,319	38,301	13,674	4,672	1,618	1,985	9,995	875	693	134	613	11,662	18	1,579	117	87,258
% Total												,			-	
average for			4.5			-	4.5	_						_	_	100
2003–2021	9	45	13	3	2	2	10	2	1	<1	1	9	<1	2	<1	100

Table 8.-Knik Arm Management Unit sport fish harvest by species as estimated by SWHS, 2003-2022.

			Salmor	1												
						Land-	Rainbow	Dolly	Arctic	Lake		Northern	White-			
Year	Chinook	Coho	Sockeye	Pink	Chum	locked	trout	Varden	grayling	trout	Burbot	pike	fish	Smelt	Other	Total
2003	2,562	24,583	6,606	52	1,124	5,800	17,617	2,247	1,222	339	438	4,026	108	1,578	30	68,332
2004	2,556	34,298	7,148	859	808	5,915	17,738	2,380	703	0	171	4,961	15	11	0	77,563
2005	3,692	27,000	3,460	270	747	6,685	14,367	2,040	507	220	805	6,160	710	0	373	67,036
2006	3,813	39,953	4,622	698	780	3,680	13,524	1,525	972	40	550	6,664	162	71	0	77,054
2007	4,326	27,733	7,030	287	364	1,654	10,613	4,063	605	127	240	3,050	43	124	34	60,293
2008	2,843	35,996	6,695	304	620	2,198	15,537	1,935	744	300	926	1,752	31	0	0	69,881
2009	2,152	37,271	5,963	370	732	793	7,981	1,842	1,455	71	17	4,647	16	0	0	63,310
2010	1,076	26,369	5,630	919	528	2,008	10,845	1,612	687	100	163	3,372	17	0	0	53,326
2011	1,012	8,484	3,589	294	659	740	9,368	1,593	439	0	132	5,963	112	0	0	32,385
2012	292	5,014	2,685	166	782	2,730	8,294	928	277	48	33	3,231	0	0	0	24,480
2013	495	12,335	2,749	180	302	1,822	9,195	1,028	180	0	26	9,338	0	0	0	37,650
2014	1,026	16,180	2,252	761	778	4,005	9,286	2,751	332	12	484	5,067	40	0	12	42,986
2015	1,628	17,800	2,183	338	840	679	10,265	1,078	63	20	386	10,097	0	0	97	45,474
2016	2,374	7,989	3,418	239	846	922	10,495	1,115	296	0	214	5,026	0	0	0	32,934
2017	902	6,232	1,263	122	966	2,014	9,375	901	357	0	115	3,369	0	0	12	25,628
2018	596	14,429	2,862	232	291	1,857	6,158	504	679	19	224	2,815	0	0	34	30,700
2019	597	9,369	3,143	197	316	1,267	7,008	722	188	171	319	7,177	0	0	0	30,474
2020	441	8,682	2,624	378	260	3,049	12,547	348	353	97	201	10,021	0	0	11	39,012
2021	624	7,870	2,186	532	138	1,198	9,711	315	336	81	167	5,318	0	0	0	28,476
2022	113	6,946	4,296	437	214	1,043	10,973	470	45	0	158	4,802	170	0	0	29,667
Average																
2003–2021	1,737	19,347	4,006	379	625	2,580	11,049	1,522	547	87	295	5,371	66	94	32	47,737
2017–2021	632	9,316	2,416	292	394	1,877	8,960	558	383	74	205	5,740	0	0	11	30,858
% Total average for 2003–2021	4	41	8	1	1	5	23	3	1	<1	1	11	<1	<1	<1	100

Table 9.-Eastside Susitna River Management Unit sport fish harvest by species, 2003-2022.

			Salmo	n												
						Land-	Rainbow	Dolly	Arctic	Lake		White-	Northern			
Year	Chinook	Coho	Sockeye	Pink	Chum	locked	trout	Varden	Grayling	trout	Burbot	fish	pike	Smelt	Other	Total
2003	9,499	18,585	2,734	1,775	2,725	105	2,581	1,694	393	339	511	82	0	0	741	41,764
2004	8,498	20,484	3,107	3,321	2,547	25	1,924	1,093	975	594	238	94	91	0	0	42,991
2005	8,453	17,471	1,677	2,625	2,506	0	793	482	404	32	260	0	104	0	259	35,066
2006	7,339	22,719	1,412	3,918	1,321	8	1,590	619	427	111	406	0	137	0	36	40,043
2007	8,337	13,464	1,470	2,165	1,204	100	840	253	779	296	321	164	1,355	0	15	30,763
2008	5,834	24,211	2,975	1,985	1,229	0	1,521	359	421	98	533	244	468	0	131	40,009
2009	3,462	15,335	7,130	4,657	1,531	528	691	282	487	125	200	0	385	0	0	34,813
2010	2,274	14,291	3,914	1,455	1,399	76	1,826	592	546	84	440	27	1,033	0	0	27,957
2011 a	2,710	9,040	2,459	1,572	2,167	102	977	239	211	516	60	0	2,138	0	7	22,198
2012	203	7,629	4,277	1,367	2,214	105	623	95	277	103	217	0	79	0	275	17,464
2013	18	12,989	4,170	2,986	1,519	28	1,248	605	226	144	474	0	1,223	0	0	25,630
2014	31	12,462	3,325	1,188	1,590	121	1,160	309	320	98	262	40	620	1,213	0	22,739
2015	258	15,043	1,984	2,533	1,821	0	468	679	905	166	194	26	371	0	0	24,448
2016	401	5,939	6,042	2,132	552	24	1,281	210	208	100	153	25	1,658	0	21	18,746
2017	0	12,838	2,297	2,144	1,730	419	817	136	203	14	114	0	654	650	0	22,016
2018	0	9,728	3,307	2,253	847	0	1,311	56	68	35	310	0	480	0	349	18,744
2019	0	8,308	4,640	4,358	1,168	47	641	264	91	48	276	0	2,315	5,218	19	27,393
2020	0	8,830	2,719	2,976	395	75	775	93	315	75	604	20	4,143	0	11	21,031
2021	0	14,069	1,599	5,615	920	0	217	259	314	0	349	10	656	1,436	0	25,444
2022	0	6,722	2,222	1,563	1,383	0	236	49	162	0	36	9	1,127	0	12	13,521
Average																
2003-2021	3,017	13,865	3,223	2,686	1,547	93	1,120	438	398	157	312	39	943	448	98	28,382
2017–2021	0	10,755	2,912	3,469	1,012	108	752	162	198	34	331	6	1,650	1,461	76	22,926
% Total average for																
2003–2021	11	49	11	9	5	<1	4	2	1	1	1	<1	3	2	<1	100

<sup>&</sup>lt;sup>a</sup> Totals for 2011 include Susitna River salmon, rainbow trout, Arctic grayling, and burbot.

Table 10.-Westside Susitna River Management Unit sport fish harvest by species, 2003-2022.

			Salmon			Rainbow	Dolly	Arctic	Lake		Northern	White-			
Year	Chinook	Coho	Sockeye	Pink	Chum	trout	Varden	grayling	trout	Burbot	pike a	fish	Smelt b	Other	Total
2003	15,035	16,072	8,660	449	476	1,425	78	327	169	397	3,816	93	5,465	0	52,462
2004	15,694	17,785	3,358	2,292	520	1,629	124	291	109	320	6,626	218	12,562	24	61,552
2005	15,945	18,266	2,219	519	111	339	151	208	152	292	4,889	71	3,068	3,214	49,444
2006	16,454	20,474	626	338	113	1,027	209	716	0	126	4,318	168	0	1,364	45,933
2007	11,370	14,065	3,177	451	136	619	79	330	56	350	3,526	242	620	0	35,021
2008	6,805	15,126	1,428	201	231	744	91	350	55	256	5,683	89	1,832	27	32,918
2009	4,713	14,464	2,358	734	193	865	190	182	48	86	3,368	50	0	74	27,325
2010	6,306	16,245	1,505	585	223	434	40	725	132	55	5,283	97	2,510	0	34,140
2011	5,914	12,483	3,413	124	54	341	52	154	31	116	2,969	0	6,763	175	32,589
2012	2,525	9,434	1,118	314	156	179	139	175	16	204	4,505	66	3,290	0	22,121
2013	2,427	13,042	5,190	225	158	468	162	909	44	80	8,168	0	1,704	0	32,577
2014	2,018	12,972	2,759	650	1,017	872	26	8,684	0	243	4,021	11	1,213	31	34,517
2015	3,619	14,191	3,427	252	378	494	186	337	96	373	6,997	8	1,015	0	31,373
2016	4,366	4,022	4,409	222	116	418	21	204	365	212	4,364	23	0	0	18,742
2017	2,550	10,759	2,795	548	280	362	43	93	0	150	5,039	0	0	0	22,619
2018	0	15,093	3,483	339	428	355	118	310	0	15	4,567	42	0	107	24,857
2019	0	11,373	6,389	1,170	311	156	17	21	0	135	3,102	8	0	0	22,682
2020	0	5,283	656	1,084	21	112	8	25	0	88	3,328	10	593	0	11,208
2021	566	10,879	2,218	533	0	373	0	114	0	0	5,139	0	0	0	19,822
2022	0	8,573	1,205	292	354	253	0	15	663	54	1,216	0	1,552	0	14,177
Average															
2003-2021	6,121	13,265	3,115	581	259	590	91	745	67	184	4,721	63	2,139	264	32,205
2017-2021	623	10,677	3,108	735	208	272	37	113	0	78	4,235	12	119	21	20,238
% Total			<u></u>												
average for 2003–2021	19	41	10	2	1	2	<1	2	<1	1	15	<1	7	1	100
2003-2021	19	41	10		1		<u> </u>		<u> </u>	1	13	<u> </u>	/	1	100

<sup>&</sup>lt;sup>a</sup> Northern pike may include Susitna River totals.

b Smelt may include Susitna River totals.

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Table 11.-West Cook Inlet Management Unit sport fish harvest by species, 2003-2022.

			Salmon			D : 1	D 11	A .:	т 1		3371 .		Nor-		
Year	Chinook	Coho	Sockeye	Pink	Chum	Rainbow trout	Dolly Varden	Arctic Grayling	Lake trout	Burbot	White- fish	Smelt	thern pike	Other	Total
2003	1,124	14,239	4,708	0	77	264	356	0	11	0	0	455	182	0	21,416
2004	795	16,179	3,323	157	84	177	368	179	31	0	0	0	493	98	21,884
2005	592	12,572	4,025	46	0	196	326	0	0	0	26	0	153	0	17,936
2006	1,038	11,940	4,993	55	13	170	133	19	6	0	0	0	285	10	18,662
2007	1,380	12,580	8,187	166	45	216	532	42	164	0	0	0	225	0	23,537
2008	437	14,673	5,652	9	153	106	645	56	0	0	0	0	96	0	21,827
2009	829	9,801	4,261	181	101	10	153	0	0	0	0	880	88	0	16,304
2010	854	9,030	5,232	183	310	89	326	0	0	0	0	0	225	0	16,249
2011	76	6,292	4,412	25	0	43	105	0	17	0	0	0	19	0	10,989
2012	0	7,813	4,966	33	26	102	283	0	6	0	17	0	0	17	13,263
2013	0	7,698	5,003	0	0	0	347	187	11	0	0	0	35	0	13,281
2014	130	7,320	6,796	0	36	32	256	41	0	0	0	0	0	21	14,632
2015	122	12,849	5,525	0	0	61	144	263	0	16	0	0	0	0	18,980
2016	35	6,029	6,248	0	0	0	92	0	0	0	0	0	321	0	12,725
2017	41	4,828	5,961	42	18	0	117	0	0	0	0	0	32	41	11,080
2018	40	8,554	5,913	198	0	18	69	0	0	0	0	0	157	0	14,949
2019	95	10,001	5,139	0	0	16	144	0	61	0	0	0	0	0	15,456
2020	98	6,937	2,744	96	0	0	137	0	50	0	0	0	0	0	10,062
2021	47	7,444	6,432	545	0	25	125	0	17	0	0	0	0	0	14,635
2022	140	3,995	4,831	0	0	91	72	0	0	0	0	0	0	0	9,129
Average															
2003-2021	407	9,830	5,238	91	45	80	245	41	20	1	2	70	122	10	16,204
2017–2021	64	7,553	5,238	176	4	12	118	0	26	0	0	0	38	8	13,236
% Total average for 2003–2021	3	61	32	1	<1	<1	2	<1	<1	<1	<1	<1	1	<1	100

Table 12.—Catch and percent of fish released by sport anglers for species in the Northern Cook Inlet Management Area, 2018–2022.

	20	18	20	19	202	20	202	21	202	22
	Catab	Percent	Catala	Percent	Catab	Percent	Catala	Percent	Catala	Percent
	Catch	released								
Chinook salmon	8,868	92.8	4,907	85.9	10,475	94.9	9,339	86.8	6,251	96.0
Coho salmon	77,965	38.7	52,997	26.3	47,030	36.8	61,808	34.9	38,103	31.1
Sockeye salmon	21,202	26.6	28,199	31.5	14,526	39.8	22,021	43.5	21,366	41.2
Pink salmon	27,219	88.9	77,787	92.6	69,846	93.5	81,731	91.2	35,259	93.5
Chum salmon	18,800	91.7	34,554	94.8	18,618	96.4	15,724	93.3	17,222	88.7
Landlocked										
salmon	6,539	71.6	4,330	69.7	11,291	72.3	3,076	61.1	3,412	69.4
Lake trout	476	88.7	903	69.0	825	73.1	451	78.3	853	22.3
Dolly Varden	12,847	94.2	9,734	88.2	7,821	92.5	14,288	95.1	6,750	91.2
Rainbow trout	60,002	86.9	78,897	90.1	163,831	91.8	102,691	89.9	81,360	85.8
Arctic grayling	17,360	93.9	14,865	98.0	28,510	97.6	15,552	95.1	16,021	98.6
Whitefish	291	85.6	169	95.3	261	88.5	381	97.4	476	62.4
Northern pike	11,530	30.5	19,581	35.7	20,732	15.6	13,432	17.3	10,039	28.8
Burbot	1,026	46.5	1,459	50.0	1,236	27.8	741	30.4	443	44.0
Smelt	0	0.0	5,218	0.0	0	0.0	1,436	0.0	3,104	0.0
Other	2,127	1.0	37	48.6	357	1.0	150	100.0	32	62.5
Total	266,252	66.5	333,637	71.2	395,359	79.4	342,821	74.2	240,691	72.4

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Table 13.—Catch and percent of fish released by sport anglers for species in the Eastside Susitna Management Unit (ESMU), 2018–2022.

	20	18	20	19	20	20	202	21	202	22
		Percent		Percent		Percent		Percent	•	Percent
Species	Catch	released	Catch	released	Catch	released	Catch	released	Catch	released
Chinook salmon	761	100.0	800	100.0	1,731	100.0	2,736	100.0	669	100.0
Coho salmon	13,777	29.4	13,937	40.4	15,050	41.3	20,438	31.2	8,644	22.2
Sockeye salmon	4,758	30.5	7,388	37.2	4,480	39.3	3,781	57.7	4,593	51.6
Pink salmon	18,218	87.6	54,542	92.0	45,783	93.5	49,692	88.7	20,026	92.2
Chum salmon	9,535	91.1	25,818	95.5	9,470	95.8	13,948	93.4	9,761	85.8
Landlocked salmon	0	0.0	782	0.0	126	0.0	0	0.0	23	0.0
Lake trout	239	85.4	180	73.3	506	85.2	83	100.0	101	100.0
Dolly Varden	1,568	96.4	2,081	87.3	1,934	95.2	6,366	95.9	1,019	95.2
Rainbow trout	21,132	93.8	27,696	97.7	80,380	99.0	41,135	99.5	22,601	99.0
Arctic grayling	8,807	99.2	8,928	99.0	12,904	97.6	11,661	97.3	7,679	97.9
Whitefish	214	100.0	74	100.0	222	91.0	337	97.0	70	87.1
Northern pike	602	20.3	2,315	0.0	4,955	16.4	656	0.0	1,552	27.4
Burbot	310	0.0	710	61.1	704	14.2	374	6.7	36	0.0
Smelt	0	0.0	5,218	0.0	0	0.0	1,436	0.0	1,552	0.0
Other	1,125	69.0	37	48.6	11	0.0	0	0.0	32	0.0
Total	81,046	76.9	150,506	81.8	178,256	88.2	152,643	83.3	78,358	82.7

Table 14.—Catch and percent of fish released by sport anglers for species in the Westside Susitna Management Unit (WSMU), 2018–2022.

	20	18	20	19	20	20	20	21	20	22
		Percent								
Species	Catch	released								
Chinook salmon	7,008	100.0	2,916	100.0	7,191	100.0	5,264	89.2	5,084	100.0
Coho salmon	30,669	50.8	14,375	20.9	8,392	37.0	18,008	39.6	11,693	26.7
Sockeye salmon	5,189	32.9	8,557	25.3	1,801	63.6	5,393	58.9	2,873	58.1
Pink salmon	5,797	94.2	19,743	94.1	17,885	93.9	28,678	98.1	10,953	97.3
Chum salmon	3,804	88.7	4,557	93.2	2,776	99.2	660	100.0	4,447	92.0
Landlocked salmon	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lake trout	0	0.0	10	0.0	132	0.0	188	0.0	663	0.0
Dolly Varden	2,146	94.5	140	87.9	449	98.2	1,307	100.0	677	100.0
Rainbow trout	9,145	96.1	10,071	98.5	10,229	98.9	10,427	96.4	16,112	98.4
Arctic grayling	6,520	95.2	3,122	99.3	13,073	99.8	2,834	96.0	8,199	99.8
Whitefish	42	0.0	95	91.6	29	65.5	26	100.0	236	100.0
Northern pike	6,829	33.1	6,755	54.1	4,291	22.4	6,087	15.6	2,519	51.7
Burbot	32	53.1	135	0.0	105	16.2	25	100.0	143	100.0
Smelt	0	0.0	0	0.0	0	0.0	0	0.0	1,552	0.0
Other	107	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	77,288	67.8	70,476	67.8	66,353	83.1	78,897	74.9	65,151	78.2

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Table 15.—Catch and percent of fish released by sport anglers for species in the Knik Arm Management Unit (KAMU), 2018–2022.

	20	18	20	19	20	20	202	21	202	22
		Percent	'-	Percent		Percent		Percent		Percent
Species	Catch	released	Catch	released	Catch	released	Catch	released	Catch	released
Chinook salmon	1,025	41.9	970	38.5	1,403	68.6	1,141	45.3	358	68.4
Coho salmon	21,323	32.3	11,082	15.5	14,003	38.0	10,888	27.7	12,112	42.7
Sockeye salmon	3,816	25.0	4,919	36.1	4,353	39.7	3,238	32.5	7,309	41.2
Pink salmon	2,503	90.7	2,161	90.9	5,168	92.7	1,966	72.9	3,073	85.8
Chum salmon	5,132	94.3	4,090	92.3	5,810	95.5	840	83.6	2,205	90.3
Landlocked salmon	6,539	71.6	3,548	64.3	11,165	72.7	3,076	61.1	3,389	69.2
Lake trout	188	89.9	366	53.3	97	0.0	136	40.4	10	100.0
Dolly Varden	5,038	90.0	3,108	76.8	4,135	91.6	3,293	90.4	3,461	86.4
Rainbow trout	28,030	78.0	40,654	82.8	72,331	82.7	50,263	80.7	42,085	73.9
Arctic grayling	1,509	55.0	2,607	92.8	2,525	86.0	1,057	68.2	143	68.5
Whitefish	35	0.0	0	0.0	10	0.0	0	0.0	170	0.0
Northern pike	3,942	28.6	10,511	31.7	11,473	12.7	6,689	20.5	5,968	19.5
Burbot	684	67.3	614	48.0	427	52.9	342	51.2	264	40.2
Smelt	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other	895	0.0	0	0.0	346	0.0	142	0.0	0	0.0
Total	80,659	61.9	84,630	64.0	133,246	70.7	83,071	65.7	80,547	63.2

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Table 16.—Catch and percent of fish released by sport anglers for species in the West Cook Inlet Management Unit (WCIMU), 2018–2022.

	20	18	2	2019	202	20	20:	21	2022	
		Percent								
Species	Catch	released								
Chinook salmon	74	45.9	221	57.0	150	34.7	198	76.3	140	0.0
Coho salmon	12,196	29.9	13,603	26.5	9,585	27.6	12,474	40.3	5,654	29.3
Sockeye salmon	7,439	20.5	7,335	29.9	3,892	29.5	9,609	33.1	6,591	26.7
Pink salmon	701	71.8	1,341	100.0	1,010	90.5	1,395	60.9	1,207	100.0
Chum salmon	329	100.0	89	100.0	562	100.0	276	100.0	809	100.0
Landlocked salmon	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lake trout	49	100.0	347	82.4	90	44.4	44	50.0	79	50.0
Dolly Varden	4,095	98.3	4,405	96.7	1,303	89.5	3,322	96.2	1,593	95.5
Rainbow trout	1,695	98.9	476	96.6	891	100.0	866	97.1	562	83.8
Arctic grayling	524	100.0	208	100.0	8	100.0	0	0.0	0	0.0
Whitefish	0	0.0	0	0.0	0	0.0	18	0.0	0	0.0
Northern pike	157	0.0	0	0.0	13	0.0	0	0.0	0	0.0
Burbot	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Smelt	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0	8	0.0	0	0.0
Total	27,259	45.2	28,025	44.8	17,504	42.5	28,210	48.1	16,635	45.1

Table 17.-Select Northern Cook Inlet escapement goals and escapements for Chinook salmon, 2017–2023.

	Goal range	2022		Initial	Escapements						
System	Lower	Upper	Type	Year	2017	2018	2019	2020	2021	2022	2023
Alexander Creek	1,900	3,700	SEG	2020	170	296	1,297	596	288	NC	NC
Campbell Creek	380	_	LB SEG	2011	475	287	393	154	339	423	NA
Chuitna River	1,000	1,500	SEG	2002	235	939	2,115	869	806	NC	372
Chulitna River	1,200	2,900	SEG	2020	NC	1125	2,765	845	1,535	NC	494
Clear (Chunilna) Creek	EL (see Talkee	etna Stock)		_	780	940	1,511	EL	EL	EL	EL
Crooked Creek	700	1,400	SEG	2002	911	714	1,444	830	594	735	NA
Deshka River	EL (see Deshk	a Stock)		_	11,383	8,544	9,711	EL	EL	EL	EL
Deshka Stock	9,000	18,000	BEG	2020	NI	NI	NI	10,638	18,674	5,440	3,741
Eastside Susitna Stock	13,000	25,000	SEG	2020	NI	NI	NI	13,815	15,208	7,654	4,003
Goose Creek	EL (see Eastside Susitna Stock)			_	148	90	NC	EL	EL	EL	EL
Lake Creek	EL (see Yentn	a Stock)		_	1,601	1,767	2,692	EL	EL	EL	EL
Lewis River	EL			_	$0^{a}$	$0^{a}$	$0^{a}$	$0^{a}$	$0^{a}$	$0^{a}$	$0^{a}$
Little Susitna River (aerial) <sup>b</sup>	700	1,500	SEG	2020	1,192	530	NC	NC	889	NC	889
Little Susitna River (weir)	2,100	4,300	SEG	2017	2,531	549	3,666	2,445	3,121	2,288	3,121
Little Willow Creek	EL (see Eastsi	de Susitna S	tock)	_	840	280	631	EL	EL	EL	EL
Montana Creek	EL (see Eastsi	de Susitna S	tock)	_	603	473	789	EL	EL	EL	EL
Peters Creek	EL (see Yentn	a Stock)		_	307	1674	1,209	EL	EL	EL	EL
Prairie Creek	EL (see Talkee	etna Stock)		_	1,930	1194	2,371	EL	EL	EL	EL
Sheep Creek	EL (see Eastsi	de Susitna S	tock)	_	NC	334	NC	EL	EL	EL	EL
Talachulitna River	EL (see Yentn	a Stock)		_	1,087	1483	3,225	EL	EL	EL	EL
Talkeetna Stock	9,000	17,500	SEG	2020	NI	NI	NI	7,279	9,107	4,288	2,216
Theodore River	500	1,000	SEG	2002	21	18	201	111	38	NC	NC
Willow Creek	EL (see Eastsi	de Susitna S	tock)	_	1,329	411	897	EL	EL	EL	EL
Yentna Stock	16,000	22,000	OEG	2020	NI	NI	NI	14,850	18,890	16,583	8,294

Source: Munro and Brenner 2023.

Note: NA = data not available; NC = no count; LB SEG = lower-bound SEG; EL = SEG Eliminated; NI = goal not in place; an en dash means not applicable.

<sup>&</sup>lt;sup>a</sup> Lewis River mouth naturally obstructed.

b Little Susitna River Chinook salmon aerial survey goal is only used to assess escapement if weir count is not available.

Table 18.–Estimated harvests of Chinook salmon of North Cook Inlet origin by all user groups, 1893–2022.

1893	3–1933	1934	1–1976	197	7–2018	201	9–2022
Year	Harvest	Year	Harvest	Year	Harvest	Year	Harvest
1893	24,000	1935	60,060	1977	5,446	2019	2,157
1894	12,400	1936	64,850	1978	4,430	2020	3,457
1895	20,159	1937	68,786	1979	9,837	2021	4,430
1896	14,461	1938	46,130	1980	11,301	2022	2,697
1897	11,266	1939	42,181	1981	11,372		
1898	13,111	1940	50,413	1982	17,146		
1899	13,682	1941	83,858	1983	18,711		
1900	21,346	1942	76,144	1984	24,006		
1901	27,455	1943	89,105	1985	25,956		
1902	39,210	1944	68,168	1986	43,325		
1903	52,818	1945	55,362	1987	40,470		
1904	24,058	1946	51,425	1988	44,452		
1905	14,134	1947	85,443	1989	50,970		
1906	17,936	1948	84,797	1990	42,517		
1907	50,355	1949	89,025	1991	42,664		
1908	27,019	1950	130,274	1992	51,913		
1909	47,699	1951	150,010	1993	54,685		
1910	39,222	1952	59,600	1994	35,651		
1911	44,676	1953	71,544	1995	22,497		
1912	38,293	1954	52,260	1996	23,560		
1913	50,922	1955	37,199	1997	24,909		
1914	38,043	1956	52,248	1998	26,972		
1915	67,034	1957	34,214	1999	38,024		
1916	50,316	1958	18,278	2000	37,648		
1917	52,399	1959	26,226	2001	34,307		
1918	27,909	1960	22,031	2002	30,515		
1919	19,041	1961	15,822	2003	31,791		
1920	31,650	1962	16,216	2004	31,650		
1921	11,157	1963	14,106	2005	33,325		
1922	24,824	1964	3,698	2006	34,515		
1923	23,929	1965	7,801	2007	30,800		
1924	21,610	1966	815	2008	21,592		
1925	40,826	1967	623	2009	13,711		
1926	60,496	1968	1,163	2010	13,428		
1927	69,923	1969	3,927	2011	12,939		
1928	55,908	1970	1,853	2012	5,236		
1929	54,155	1971	10,494	2013	2,803		
1930	57,854	1972	5,748	2014	2,484		
1931	41,122	1973	246	2015	3,072		
1932	56,745	1974	238	2016	10,323		
1933	47,425	1975	301	2017	7,123		
1934	57,903	1976	692	2018	1,941		

Source: 1893–1968 SWHS for the Division of Sport Fish; Marston and Frothingham 2022; data archived with the Division of Commercial Fisheries and the Division of Subsistence.

Table 19.—Estimated harvests by user of Chinook salmon originating from the Northern Cook Inlet Management Area, 2003–2022.

		Commerciala				Spo	ort <sup>b</sup>		Subsist-	Grand
Year	NCId	Kustatan	Total	KAMU	ESMU	WSMU	WCIMU	Total	encec	Total
2003	1,683	501	2,184	2,562	9,499	15,035	1,124	28,220	1,384	31,788
2004	1,926	430	2,356	2,556	8,498	15,694	795	27,543	1,751	31,650
2005	3,373	87	3,460	3,692	8,453	15,945	592	28,682	1,183	33,325
2006	4,261	244	4,505	3,813	7,339	16,454	1,038	28,644	1,366	34,515
2007	3,818	43	3,861	4,326	8,337	11,370	1,380	25,413	1,526	30,800
2008	3,983	198	4,181	2,843	5,834	6,805	437	15,919	1,492	21,592
2009	1,631	107	1,738	2,152	3,462	4,713	829	11,156	817	13,711
2010	1,750	52	1,802	1,076	2,274	6,306	854	10,510	1,116	13,428
2011	2,299	77	2,376	1,012	2,710	5,914	76	9,712	851	12,939
2012	1,049	65	1,114	292	203	2,525	0	3,020	1,102	5,236
2013	1,327	124	1,451	0	0	0	0	0	1,352	2,803
2014	1,470	118	1,588	0	0	0	130	130	896	2,614
2015	1,923	79	2,002	0	0	0	122	122	1,070	3,194
2016	2,202	97	2,299	2,374	401	4,366	35	7,176	1,030	10,505
2017	2,230	96	2,326	902	0	2,550	41	3,493	1,304	7,123
2018	143	60	203	596	0	61	40	697	1,042	1,942
2019	202	201	403	597	0	0	95	692	1,062	2,157
2020	1,658	74	1,732	440	0	0	98	538	1,180	3,450
2021	1,893	94	1,987	619	0	0	47	666	1,022	3,675
2022	1,328	165	1,493	111	0	0	139	250	954	2,697

<sup>&</sup>lt;sup>a</sup> Source: Marston and Frothingham 2022.

b Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2024). Available from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

Source: Marston and Frothingham 2022. Includes Tyonek subsistence fishery (1980–2003) and Northern and Central districts subsistence fisheries (1985, 1991–1993). Data for 1994–1995 include the Northern District.

<sup>&</sup>lt;sup>d</sup> "Northern District" total from Marston and Frothingham 2022.

Table 20.–Knik Arm Management Unit Chinook salmon escapement, 2004–2023.

	Little Susi	tna River	
Year	Weir	Aerial	Moose Creek <sup>a</sup>
2004	ND	1,694 <sup>b</sup>	197
2005	ND	$2,095^{b}$	254
2006	ND	1,855 <sup>b</sup>	216
2007	ND	$1,731^{b}$	330
2008	ND	$1,297^{b}$	384
2009	ND	$1,028^{b}$	201
2010	ND	589 <sup>b</sup>	142
2011	ND	$887^{b}$	175
2012	ND	1,154 <sup>b</sup>	163
2013	$2,379^{\circ}$	1,651 <sup>b</sup>	257
2014	3,135	$1,759^{b}$	299
2015	4,902	$1,507^{b}$	d
2016	4,969	1,622 <sup>b</sup>	d
2017	2,531e	$1,192^{b}$	d
2018	$936^{\rm f}$	$530^{\rm b}$	108
2019	3,666	d	d
2020	2,445	558 <sup>g</sup>	d
2021	3,121	$889^{\rm g}$	226
2022	$2,288^{c}$	ND	ND
2023	799°	ND	ND
Average			
2013-2022	$3,213^{h}$	1,214	222
2018–2022	2,542 <sup>h</sup>	659	167

Note: ND means no data.

<sup>&</sup>lt;sup>a</sup> Helicopter survey (1995 to present).

<sup>&</sup>lt;sup>b</sup> Sustainable escapement goal (SEG) is 900–1,800 fish.

<sup>&</sup>lt;sup>c</sup> Incomplete count due to high water.

<sup>&</sup>lt;sup>d</sup> No count conducted; water too turbid.

<sup>&</sup>lt;sup>e</sup> Sustainable escapement goal (SEG) 2,100–4,300 fish.

 $<sup>^{\</sup>rm f}~$  Estimated weir passage (95% CI 697–1,253 fish). Weir was down June 11–July 1

g Sustainable escapement goal is 700–1,500 fish.

<sup>&</sup>lt;sup>h</sup> Incomplete counts not included in the average.

Table 21.-Knik Arm Management Unit Chinook salmon sport harvest by fishery, 2003-2022.

Year	Little Susitna River	Eklutna Tailrace	Other	Total
2003	2,138	399	25	2,562
2004	2,362	23	66	2,451
2005	2,724	941	27	3,692
2006	3,303	484	26	3,813
2007	3,210	1,084	32	4,326
2008	2,219	594	30	2,843
2009	1,653	499	0	2,152
2010	889	288	17	1,194
2011	828	184	0	1,012
2012	216	76	0	292
2013	336	159	0	495
2014	437	589	0	1,026
2015	672	956	0	1,628
2016	1,005	1,369	0	2,374
2017	351	551	0	902
2018	37	562	0	599
2019	259	524	0	783
2020	0	440	103	543
2021	43	576	0	619
2022	22	90	0	112
Mean				
2012-2021	336	580	10	926
2017-2021	138	531	21	689

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Table 22.-Eastside Susitna River Management Unit Chinook salmon sport harvest by fishery, 2004-2023.

	******	Little	T7 1 1	G 11	G1		3.6	D: 1	G 1:	m 11		
Year	Willow Creek	Willow Creek	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River a	Other b	Total
2003	3,922	510	373	26	1,284	350	1,242	167	154	1,276	195	9,499
2004	2,818	445	125	23	914	335	1,071	0	25	2,473	315	8,544
2005	2,466	621	112	394	878	150	1,328	287	205	1,960	52	8,453
2006	2,141	449	210	264	707	27	1,672	97	211	1,561	0	7,339
2007	2,258	870	223	190	964	31	1,294	0	0	2,476	31	8,337
2008	1,101	505	237	30	589	134	1,188	46	431	1,479	94	5,834
2009	499	85	212	17	393	0	257	0	0	1,982	210	3,655
2010	218	169	214	0	153	0	371	26	56	1,013	368	2,588
2011	282	33	172	0	213	0	362	0	16	1,087	545	2,710
2012	13	0	8	0	0	0	13	0	0	113	56	203
2013	0	0	0	0	0	0	0	0	0	0	18	18
2014	0	0	0	0	0	0	0	0	0	0	31	31
2015	0	0	0	0	0	0	0	0	0	0	258	258
2016	0	0	0	0	0	0	0	0	0	0	401	401
2017	0	0	0	0	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0	0	0	0	0
Average												
2012–2021	1	0	1	0	0	0	1	0	0	11	76	91
2017–2021	0	0	0	0	0	0	0	0	0	0	0	0

<sup>&</sup>lt;sup>a</sup> Talkeetna River and tributaries including Clear Creek.

b Includes lakes and streams.

Table 23.– Eastside Susitna River Management Unit Chinook salmon escapement index counts, 2004–2023.

Year	Willow Creek <sup>a</sup>	Deception Creek	Little Willow Creek	Sheep Creek	Goose Creek	Montana Creek	Clear Creek	Prairie Creek	Chulitna River	Portage Creek	Indian River	Kashwitna River	Other <sup>b</sup>	Total
2004	2,985	480	2,227	285	417	2,117	3,417	5,570	2,162	1,972	593	342	652	22,567
2005	2,463	1.806	1,784	760	468	2,600	1,924	3,862	2,838	2,151	670	454	83	
		,			306	<i>'</i>		,	,	· · · · · · · · · · · · · · · · · · ·			ND	21,780
2006	2,217	940	816	580		1,850	1,520	3,570	2,862	942	718	613		16,934
2007	1,373	604	1,103	400 d	105	1,936	3,310	5,036	5,166	2,284	1,017	895 d	ND	23,229
2008	1,255g	255°			117	1,357	1,795	3,039	2,514	169	288		ND	10,789
2009	1,133	d	776	500	65e	1,460	1,205	3,500	2,093	1,228	409	317	ND	12,686
2010	1,173	d	468	d	76 <sup>e</sup>	755	903	3,022	1,052	d	d	d	ND	7,449
2011	1,061	180	713	350	80	494	512	2,038	1,875	1,217	282	134	ND	8,936
2012	756	349	494	363	57	416	1,177	1,185	667	501	338	85	ND	6,388
2013	1,752	350	858	d	62	1,304	1,471	3,304	1,262	868	332	234	ND	11,797
2014	1,335	688	684	262	232	953	1,390	2,812	1,011	d	558	88	104	10,117
2015	2,046	d	788	d	d	1,416	1,205	3,290	3,137	d	d	224	ND	12,106
2016	1,814	d	675	d	d	692	d	1,853	1,151	d	242	203	ND	6,630
2017	1,329	d	840	d	148	603	780	1,930	d	545	203	161	ND	5,994
2018	411	d	280	334	90	473	940	1,194	1,125	429	326	112	ND	5,285
2019	897	128	631	d	d	789	1,511	2,371	2,765	1,408	d	d	ND	9,092
2020	675	435	579	d	126°	760	741	1,553	845	510	312°	153°	ND	6,179
2021	887	492	558	d	d	849	1,040	1,764	1,535	1,175	426	185	ND	8,911
2022	444	ND	359	ND	ND	220	539	704	ND	ND	ND	175	ND	2,441
2023	360	ND	191	ND	ND	104	192	554	494	ND	ND	103	ND	1,998
Average														
2013–2022	1,159	419	625	298	132	806	1,069	2,078	1,604	823	343	171	104	7,855
2018–2022	663	352	481	334	108	618	954	1,517	1,568	881	355	156	ND	6,382

Note: ND means no attempts were made to collect data. Aerial survey methods available in Oslund 2016, 2022.

<sup>&</sup>lt;sup>a</sup> Includes hatchery fish.

<sup>&</sup>lt;sup>b</sup> May include Honolulu, Byers, Troublesome, Bunco, Birch, Sunshine, Larson Creeks.

<sup>&</sup>lt;sup>c</sup> Poor count due to timing, poor visibility, or weather conditions.

<sup>&</sup>lt;sup>d</sup> No counts conducted due to poor water visibility.

e Beaver dam blocks fish passage.

Table 24.-Westside Susitna River Management Unit Chinook salmon escapement index counts, 2004–2023.

	Alexander	Deshka R	iver						
Year	Creek	Aerial index	Weir <sup>a</sup>	Peters Creek	Lake Creek	Talachulitna River	Cache Creek	Other streams <sup>b</sup>	Aerial total
2004	2,215	28,778	57,934	3,757	7,598	8,352	212	3,509	54,421
2005	2,140	11,495	37,725	1,508	6,345	4,406	1,460	420	27,774
2006	885	6,499°	31,150	1,114	5,300	6,152	1,230	1,894	23,074
2007	480	6,712	18,714	1,225	4,081	3,871	551	1,725	18,645
2008	$150^{\rm d}$	d	7,533	d	2,004	2,964	d	491	5,609
2009	275	3,954	11,967	1,283	1,394	2,608	d	457	9,971
2010	177	d	18,594	d	1,617	1,499	d	209	3,502
2011	343	7,522	19,026	1,103	2,563	1,368	27	398	13,324
2012	181	d	14,096	459	2,366	847	87	440	4,380
2013	588	8,686	18,531	1,643	3,655	2,285	582	1,163	18,602
2014	911	d	16,335	1,443	3,506	2,256	475	1,064	9,655
2015	1,117	d	24,316	1,514	4,686	2,582	363	1,618	11,880
2016	754	d	22,874	1,122	3,588	4,295	120	ND	9,879
2017	170	d	11,383	307	1,601	1,087	9	163	3,337
2018	296	2,977	8,549	$0^{\rm e}$	1,767	1,483	154	578	7,255
2019	1,297	d	9,705	1,209	2,692	3,225	252	878	9,553
2020	596	d	10,638	449	1,677	2,019	128	676	5,545
2021	288	7,252	18,664	438	2,258	2,386	ND	320	12,942
2022	ND	ND	5,440	462	1,920	ND	ND	ND	7,822
2023	ND	ND	3,741	287	1,179	441	ND	ND	5,648
Average									
2013-2022	669	6,305	14,644	859	2,735	2,402	260	808	9,647
2018–2022	619	5,115	10,599	512	2,063	2,278	178	613	8,623

Note: ND means no attempts were made to collect data. Aerial survey methods available in Oslund 2016, 2022.

<sup>&</sup>lt;sup>a</sup> No weir on the Deshka River prior to 1995. Weir count is not an actual escapement count.

b May include Donkey Creek, Red Creek, Red Salmon Creek, Canyon Creek, and other miscellaneous creeks.

<sup>&</sup>lt;sup>c</sup> Low count due to timing, poor visibility, or weather conditions.

d No count due to poor water visibility.

e Invalid count.

Table 25.-Westside Susitna River drainage Chinook salmon sport harvest by fishery, 2003-2022.

	Alexander	Deshka	Rabideux	Yentna	Peters	Lake	Fish	Talachulitna	Other	Other	
Year	Creek	River	Creek	River	Creek	Creek	Creek <sup>a</sup>	River	streams b	lakes <sup>b</sup>	Total
2003	2,293	6,605	ND	277	122	4,467	371	587	313	0	15,035
2004	1,294	9,050	12	523	85	3,657	390	344	293	0	15,648
2005	1,052	7,332	ND	963	0	4,508	307	800	915	68	15,945
2006	1,396	7,753	40	1,964	33	4,070	103	452	643	0	16,454
2007	412	5,696	0	827	465	2,881	68	1,021	0	0	11,370
2008	0	2,036	0	1,009	220	2,756	89	435	260	0	6,805
2009	0	723	35	863	148	2,273	174	258	239	0	4,713
2010	0	3,381	16	722	36	1,644	41	323	143	0	6,306
2011	0	3,139	10	834	61	1,392	51	393	34	0	5,914
2012	0	1,650	0	118	0	602	0	17	138	0	2,525
2013	0	1,087	0	115	29	1,088	0	0	108	0	2,427
2014	0	1,329	0	36	81	572	0	0	0	0	2,018
2015	0	1,927	0	402	159	911	72	0	148	0	3,619
2016	0	2,899	0	201	49	1,217	0	0	0	0	4,366
2017	0	1,392	0	209	0	649	55	140	105	0	2,550
2018	0	0	0	61	0	0	0	0	0	0	61
2019	0	0	0	0	0	0	0	0	0	0	0
2020	0	290	0	0	0	0	0	0	0	0	290
2021	0	566	0	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0	0	0	0
Average											
2012-2021	0	1,114	0	114	32	504	13	16	50	0	1,786
2017–2021	0	450	0	54	0	130	11	28	21	0	580

Note: ND indicates no data.

<sup>&</sup>lt;sup>a</sup> Fish Lake drainage (Yentna River drainage).

<sup>&</sup>lt;sup>b</sup> May include harvest from West Cook Inlet waters through 1998.

Table 26.-West Cook Inlet Chinook salmon sport harvest by fishery, 2003–2022.

		Beluga	Theodore	Lewis	Susitna R.– N.	South of N.		
Year	Chuitna River	River	River	River	Foreland	Foreland	Other sites	Total
2003	592	51	13	0	194	144	130	1,124
2004	333	276	0	0	102	0	84	795
2005	294	105	0	0	24	92	77	592
2006	445	66	0	0	160	32	335	1,038
2007	984	143	0	0	33	47	173	1,380
2008	46	15	0	0	217	159	0	437
2009	109	51	0	0	112	204	353	829
2010	0	58	0	0	121	480	195	854
2011	0	0	0	0	0	54	22	76
2012	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	11	119	130
2015	0	0	0	0	122	0	0	122
2016	0	0	0	0	0	35	0	35
2017	0	0	0	0	0	0	41	41
2018	0	0	0	0	0	0	40	40
2019	0	0	0	0	0	95	0	95
2020	0	0	0	0	0	54	44	98
2021	0	0	0	0	0	0	48	48
2022	0	0	0	0	0	140	0	140
Average								
2012-2021	0	0	0	0	12	20	29	61
2017-2021	0	0	0	0	0	30	35	64

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Table 27.-West Cook Inlet Management Unit Chinook salmon escapement index counts, 2004–2023.

Year	Chuitna River	Theodore River	Lewis River <sup>a</sup>	Coal Creek	Other streams <sup>b</sup>	Total
2004	2,938	491	1000	609	ND	5,038
2005	1,307	478	441	504	ND	2,730
2006	1,911	958	341	996	ND	4,206
2007	1,180	486	$0^{c}$	773	ND	2,439
2008	586	345	120	ND	ND	1,051
2009	1,040	352	111	119 <sup>d</sup>	ND	1,622
2010	735	202	56	ND	ND	993
2011	719	327	92	373	ND	1,511
2012	502	179	107	184	ND	972
2013	1690	476	61	138	ND	2,365
2014	1,398	312	61	411	ND	2,182
2015	1,965	426	5°	455	ND	2,851
2016	1,372	68	$0^{c}$	e	e	1,440
2017	235	21	$0^{\rm c}$	82	227	565
2018	939	18	$0^{c}$	e	e	957
2019	2,115	201	c	85	250	2,651
2020	869	111	c	247	ND	1,227
2021	806	38	c	ND	ND	844
2022	ND	ND	ND	ND	ND	ND
2023	372	ND	ND	ND	ND	372
Average						
2013–2022	1,265	186	21	236	239	1,676
2018–2022	1,182	92	0	166	250	1,420

Note: ND means no attempts were made to collect data. Aerial survey methods available in Oslund 2016, 2022.

<sup>&</sup>lt;sup>a</sup> Escapement goal discontinued as of 2020.

<sup>&</sup>lt;sup>b</sup> May include Olsen, Nikoli, Coal, Straight, Bishop, Drill, and Scarp Creeks.

<sup>&</sup>lt;sup>c</sup> River diverged into open muskeg one-half mile below bridge. No water in mainstem.

d Mainstem too glacial to count. Only counted above forks.

<sup>&</sup>lt;sup>e</sup> No count conducted; turbid water.

Table 28.-Westside Knik Arm drainage coho salmon escapement counts 2004–2023.

	Little			Was	illa Creek dr	rainage indices <sup>c</sup>			Jim Creek drai	nage	
Year	Susitna River weir <sup>a</sup>	Fish Creek weir <sup>b</sup>	Cottonwood Creek index <sup>c</sup>	Mainstem	Spring Creek upper	Spring Creek flats	Total	Weir	McRoberts Creek index <sup>c</sup>	Upper Jim Creek index <sup>c</sup>	Total index
2004	40,199	1,415 <sup>d</sup>	430e	934	114	100	1,148	NC	4,652	1,045	5,697
2005	16,839 <sup>f</sup>	3,011 <sup>d</sup>	619e	NS	NS	130	130	NC	1,464	1,883	3,347
2006	$8,786^{\rm f}$	$4,967^{d}$	912e	294 <sup>g</sup>	171	272	737	NC	2,389	1,750	4,139
2007	17,573	$6,868^{d}$	1,024e	$380^{\mathrm{g}}$	50	0	430	NC	725	1,150	1,875
2008	18,485	$4,868^{d}$	1,821e	1,461	63	12	1,536	NC	1,890	1,029	2,919
2009	9,523	8,214 <sup>d</sup>	942e	936	28	14	978	NC	1,331	1,193	2,524
2010	9,214	$6,977^{d}$	756	927	290	6	1,223	NC	242	420	662
2011	4,826	1,428 <sup>d</sup>	698	518	55	3	576	NC	261	229	490
2012	6,779	1,237	467	NS	NS	NS	NS	NC	213	495	708
2013	13,583 <sup>f</sup>	$7,593^{\rm f}$	1,618	422	12	26	460	NC	663	1,029	1,692
2014	24,211	10,283	1,698	1,030	14	23	1,067	NC	122	618	740
2015	$12,756^{\rm h}$	7,912	1,068	292	63	20	375	3,572	571	374	945
2016	10,049	$2,484^{b}$	373	216	60	30	306	1,764	106	307	413
2017	17,781	8,966	1,388	776	44	28	848	5,646	607	874	1,481
2018	7,583 <sup>f</sup>	5,022	616	263	38	38	339	5,590	758	1,215	1,973
2019	$4,229^{f}$	3,025	293	100	19	14	133	3,736	162	632	794
2020	$9,779^{i}$	$4,555^{b}$	462	234	6	10	250	NC	735	877	1,612
2021	$10,229^{f,i}$	$6,462^{b}$	NS	109	82	27	218	NC	1,499	274	1,773
2022	$2,792^{f,i}$	NC	NS	NS	NS	NS	ND	NC	1,899	595	2,494
2023	$2,949^{f,i}$	1,534	NS	NS	NS	NS	ND	791 <sup>b</sup>	378	479	857
Average											
2013-2022	15,455 <sup>j</sup>	5,956 <sup>j</sup>	940	382	38	24	444	4,062	712	680	1,392
2018–2022	9,779 <sup>j</sup>	4,024 <sup>j</sup>	457	177	33	24	235	4,663	1,011	719	1,729

Note: NS means no survey conducted; NC means no weir count; ND means no data.

<sup>&</sup>lt;sup>a</sup> Weir located at RM 71 in 1996–2010.

b Weir was removed on August 15 before the majority of the coho salmon run during 2004–2008, 2011, 2016, 2020–2022.

<sup>&</sup>lt;sup>c</sup> Foot surveys unless otherwise noted.

d Coho salmon counted below weir after it was pulled in 2004–2011: 1,840 (2004), 825 (2005), 756 (2006), 2,750 (2007), 4,735 (2008), 452 (2009), 57 (2010), 872 (2011).

<sup>&</sup>lt;sup>e</sup> The highest count of 3 counts occurred within a 2-week period.

f Incomplete or partial count due to weir submersion.

g Poor counting conditions.

h Weir pulled early on August 27, 2015.

Escapement equals weir count minus harvest (Statewide Harvest Survey) upstream of the weir. Weir count 10,751 (2020), 10,923 (2021), 3,162 (2022), 3,726 (2023).

j Averages do not include incomplete or partial weir counts.

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Table 29.—Coho salmon harvest (H) and angler-days of fishing effort (E) from Knik Arm sport fisheries, 2003–2022.

		_					Other Kni	k Arm								
	Little Susit	na River	Jim Cr	reeka	Wasilla	a Creek	Cottonwo	od Creek	Fish	Creek	Eklutna	Tailrace	O	ther	То	tal
Year	Harvest	Effort <sup>b</sup>	Harvest	Effort <sup>b</sup>	Н	E b	Harvest	Effort <sup>b</sup>	Н	E b	Н	Е <sup>в</sup>	Н	Е <sup>в</sup>	Harvest	Effort b
2003	13,672	31,993	6,415	13,474	261	757	665	2,238	112	758	3,128	8,423	330	46,335	24,583	103,978
2004	15,307	33,819	11,766	19,342	488	1,079	532	3,282	774	2,029	5,084	9,588	347	44,389	34,298	113,528
2005	10,203	27,490	10,114	19,605	347	684	668	1,484	535	1,461	4,899	19,339	234	45,700	27,000	115,763
2006	12,399	28,547	19,259	25,271	857	869	789	3,867	281	948	6,104	20,465	264	39,828	39,953	119,795
2007	11,089	23,233	11,848	21,342	324	1,194	856	3,448	120	907	3,298	22,619	198	47,938	27,733	120,681
2008	13,498	31,989	17,545	27,874	1,086	1,394	308	2,718	993	1,343	2,253	20,586	313	50,668	35,996	136,572
2009	8,346	28,151	11,573	16,486	1,002	1,619	1,503	2,512	1,178	2,050	6,767	22,625	6,902	49,065	37,271	122,508
2010	10,662	24,846	8,442	16,140	2,886	2,354	301	2,064	966°	2,161	3,233	14,708	616	44,008	26,369	106,281
2011	2,452	12,779	3,132	9,810	372	1,300	619	1,736	414	970	1,350	5,972	145	34,117	8,484	66,684
2012	1,681	10,115	1,858	7,474	191	506	616	884	274	1,220	394	5,475	0	32,999	5,014	58,673
2013	5,229	12,012	3,258	8,474	1,286	1,569	297	901	356	1,000	1,521	8,370	388	43,786	12,335	76,112
2014	6,922	13,636	3,045	9,376	853	1,258	275	1,522	622	2,068	4,103	13,443	360	56,604	16,180	97,907
2015	8,880	17,845	2,910	5,746	1,471	1,467	53	2,645	2,041	2,587	2,224	13,968	529	41,084	18,108	85,342
2016	4,361	16,168	1,343	5,406	293	548	224	3,471	496	1,598	1,054	16,007	202	19,844	7,973	63,042
2017	3,068	11,376	750	3,299	395	954	580	3,043	358	1,250	913	12,300	168	41,241	6,232	73,463
2018	6,663	10,948	2,924	6,045	276	681	136	1,981	1,915	2,896	1,054	16,007	202	19,844	13,170	58,402
2019	3,167	8,851	2,856	5,455	97	262	300	3,724	892	2,401	1,881	12,397	62	415	9,255	33,505
2020	2,557	11,350	2,406	5,954	0	348	50	3,644	1,916	4,154	747	9,883	1006	611	8,682	35,944
2021	3,560	7,760	1,856	4,849	50	176	105	3,731	297	621	592	9,466	224	847	6,684	27,450
2022	2,114	6,563	3,717	6,519	46	363	77	1,020	533	2,465	373	4,611	86	1,469	6,946	23,010
Average																
2012-2021	4,608	12,002	2,321	6,208	491	777	263	2,554	919	1,983	1,448	11,732	347	27,526	10,399	62,989
2017–2021	3,803	10,057	2,158	5,120	164	484	234	3,225	1,076	2,264	1,037	12,011	332	12,177	8,805	45,753

<sup>&</sup>lt;sup>a</sup> Includes other Knik River tributaries.

<sup>&</sup>lt;sup>b</sup> Participation directed at coho salmon represents only a portion of the annual effort.

<sup>&</sup>lt;sup>c</sup> Includes Fish Creek saltwater areas.

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Table 30.-Eastside Susitna River drainage coho salmon harvest by fishery, 2003-2022.

	Willow	Little Willow	Kashwitna	Caswell	Sheep	Goose	Montana	Birch	Sunshine	Talkeetna		
Year	Creek	Creek	River	Creek	Creek	Creek	Creek	Creek	Creek	River <sup>a</sup>	Other b	Total
2003	2,918	635	1,090	938	1,908	220	3,361	421	2,508	3,984	602	18,585
2004	2,981	1,290	251	189	2,636	248	4,866	223	2,070	4,454	1,276	20,484
2005	4,255	1,103	369	340	2,337	267	2,592	288	2,493	3,359	68	17,471
2006	5,031	1,511	1,202	780	3,602	906	2,622	281	3,460	3,224	100	22,719
2007	3,625	853	253	185	2,707	75	2,017	149	1,318	2,166	116	13,464
2008	3,760	1,340	2,880	649	2,125	594	5,628	58	2,928	4,128	121	24,211
2009	3,232	1,027	525	607	1,594	635	3,087	320	816	3,114	1,713	16,670
2010	1,986	1,506	660	670	1,641	132	2,498	345	1,123	2,729	1,001	14,291
2011	2,055	189	755	129	762	64	780	196	1,046	1,895	1,169	9,040
2012	918	295	285	160	395	608	1,085	129	957	2,282	515	7,629
2013	1,760	210	541	284	1,699	52	2,428	652	685	2,940	1,738	12,989
2014	1,408	807	564	99	995	1,593	1,602	172	1,775	2,028	1,419	12,462
2015	3,127	437	376	203	2,215	519	1,530	0	873	3,377	2,386	15,043
2016	660	398	217	329	1,037	164	328	34	532	889	1,351	5,939
2017	2,787	582	99	241	1,217	23	1,767	0	1,585	3,298	1,239	12,838
2018	1,375	1,201	554	102	552	12	991	140	1,821	1,365	1,615	9,728
2019	1,348	169	24	90	637	261	1,233	34	656	2,665	1,149	8,266
2020	592	901	1,001	422	824	23	1,313	0	870	1,398	1,472	8,816
2021	2,939	756	327	563	1,050	105	3,756	257	1,028	1,166	2,178	14,125
2022	271	187	0	54	912	0	1,249	189	293	1,074	2,493	6,722
Average												
2012-2021	1,691	576	399	249	1,062	336	1,603	142	1,078	2,141	1,506	10,784
2017–2021	1,808	722	401	284	856	85	1,812	86	1,192	1,978	1,531	10,755

<sup>&</sup>lt;sup>a</sup> Talkeetna River and tributaries including Clear Creek.

b Includes lakes and streams.

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Table 31.-Westside Susitna River drainage coho salmon harvest by fishery, 2003-2022.

Year	Alexander Creek	Deshka River	Rabideux Creek	Peters Creek	Yentna River	Lake Creek	Fish Creek <sup>a</sup>	Talachulitna River	Other b	Total
2003	1,071	4,946	ND	155	1,162	5,263	959	1,543	973	16,072
2004	1,827	4,440	586	149	1,283	6,106	1,880	959	555	17,785
2005	757	3,616	168	96	678	8,684	2,292	583	1,392	18,266
2006	119	6,042	837	105	3,040	6,330	1,433	1,127	1,441	20,474
2007	328	2,550	134	454	3,512	3,685	842	1,804	756	14,065
2008	10	3,426	714	227	3,563	4,147	567	1,511	961	15,126
2009	501	4,060	23	472	2,607	4,417	417	675	1,292	14,464
2010	214	5,690	112	200	3,679	4,572	322	681	566	16,036
2011	245	2,282	118	894	3,685	3,340	139	533	1,247	12,483
2012	237	1,358	149	158	2,406	2,775	696	444	1,211	9,434
2013	448	2,658	0	0	2,111	4,961	81	1,040	1,743	13,042
2014	415	2,598	60	757	2,064	4,659	322	621	1,476	12,972
2015	406	2,221	636	418	3,077	4,390	473	1,859	711	14,191
2016	126	1,528	0	107	696	1,126	0	217	222	4,022
2017	265	2,825	545	46	1,992	3,277	174	1,005	630	10,759
2018	445	3,169	576	163	2,812	5,922	0	1,330	676	15,093
2019	115	1,578	190	0	3,047	5,225	145	388	727	11,415
2020	382	1,953	0	0	1,674	649	169	58	436	5,321
2021	163	2,248	250	0	2,987	4,067	0	516	442	10,673
2022	63	1,936	97	0	2,199	1,845	815	376	1,242	8,573
Average										
2012-2021	300	2,214	241	165	2,287	3,705	206	748	827	10,692
2017–2021	274	2,355	312	42	2,502	3,828	98	659	582	10,652

<sup>&</sup>lt;sup>a</sup> Fish Lake drainage (Yentna River drainage).

b May include harvest from West Cook Inlet Management Unit lakes and streams.

Table 32.—Eastside and Westside Susitna River drainages coho salmon escapement counts, 2004–2023.

_	Westside St	usitna Management Un	it	Easts				
Year	Deshka River <sup>b</sup>	Rabideux Creek index	Total	Birch Creek index	Question Creek index	Answer Creek index	Total	Susitna total
2004	62,940	NS	62,940	NS	822	111	933	63,873
2005	47,887	NS	47,887	1,014	537	35	1,586	49,473
2006	59,419 <sup>b</sup>	3,063	62,482	883	299	270	1,452	63,934
2007	10,575	NS	10,575	167	241	26	434	11,009
2008	12,724	10,043	22,767	798	273	382	1,453	24,220
2009	27,348	345 °	27,693	219°	9°	166 °	394	28,087
2010	10,393	161	10,554	117	41	2	160	10,714
2011	$7,508^{b}$	58	7,566	76	94	116	286	7,852
2012	6,825	NS	6,825	276	75 <sup>d</sup>	NS	351	7,176
2013	22,341	127	22,468	159	265	19	443	22,911
2014	11,578	139	11,717	398	251	40	689	12,406
2015	10,775	NS	10,842	191	166	14	371	11,213
2016	6,820 <sup>b</sup>	NS	6,820	83 <sup>d</sup>	121 <sup>d</sup>	$0^{d}$	204	7,024
2017	36,869	119	36,988	182	260	74	516	37,504
2018	12,962	110	13,072	143	513	15	671	13,743
2019	10,445	100	10,545	159	378	22	559	11,104
2020	5,368	139	5,507	NS	277	20	297	5,804
2021	3,431e	NS	3,431	NS	NS	NS	ND	3,431
2022	$3,137^{e}$	NS	3,137	NS	NS	NS	ND	3,137
2023	1,817 <sup>b</sup>	NS	1,817	NS	NS	NS	ND	1,817
Average								
2013-2022	ND	ND	12,453	ND	ND	ND	ND	12,828
2018-2022	ND	ND	7,138	ND	ND	ND	ND	7,444

Note: Aerial survey methods available in Oslund 2016, 2022. NS means no survey conducted. ND means data insufficient for calculation.

<sup>&</sup>lt;sup>a</sup> Survey conducted by walking portions of the creek.

b Weir count. In 2006, 2011, 2016, and 2023 the weir was underwater for an extended time during the coho salmon season, resulting in incomplete counts. Means are given for complete counts only.

<sup>&</sup>lt;sup>c</sup> Extreme low water conditions.

d Poor survey conditions.

<sup>&</sup>lt;sup>e</sup> Pulled weir early due to budget cuts.

Table 33.-West Cook Inlet drainage coho salmon harvest by fishery, 2003-2022.

									Other			
							Big	Silver	Susitna R.	Other		
	Chuitna	Beluga	Theodore	Lewis	Kustatan	Polly	River	Salmon	- N.	south of N.	- 4 1	
Year	River	River	River	River	River	Creek	Lakes a	Creek	Foreland	Foreland	Other b	Total
2003	1,467	426	225	197	3,967	190	2,830	2,269	429	1,611	628	14,239
2004	1,655	520	645	90	3,984	39	2,648	1,389	225	3,471	1,103	15,769
2005	972	120	229	524	3,551	ND	3,916	1,568	491	913	288	12,572
2006	531	313	282	177	3,556	73	3,953	997	360	1,538	160	11,940
2007	1,577	537	811	82	4,057	45	1,644	1,041	792	820	1,174	12,580
2008	1,401	490	31	29	3,868	285	3,560	356	122	967	3,564	14,673
2009	707	154	313	73	2,639	106	3,032	1,133	1,009	548	87	9,801
2010	257	244	178	77	2,832	79	3,627	714	130	892	0	9,030
2011	425	512	45	9	1,876	28	1,270	640	852	419	216	6,292
2012	770	338	116	27	2,136	0	1,634	419	734	974	665	7,813
2013	375	48	328	92	2,550	0	2,293	224	427	1,269	92	7,698
2014	251	985	202	0	1,822	61	2,737	409	0	761	92	7,320
2015	488	780	1,190	71	4,231	423	2,383	864	1,157	154	1,108	12,849
2016	0	0	536	0	1,700	236	1,082	702	956	817	0	6,029
2017	571	166	109	0	1,540	0	1,720	286	0	436	0	4,828
2018	617	300	454	248	2,512	65	2,103	249	480	1,426	100	8,554
2019	416	288	501	0	2,419	49	2,298	1,012	992	1,864	162	10,001
2020	496	288	143	0	3,486	6	968	171	191	657	531	6,937
2021	1,036	733	81	ND	2,073	ND	982	240	375	1,677	375	7,572
2022	22	188	623	ND	1,124	0	1,163	480	221	152	22	3,995
Average												
2012–2021	502	393	366	49	2,447	93	1,450	458	531	1,004	313	7,590
2017-2021	627	355	258	62	2,406	30	1,614	392	408	1,212	234	7,578

Note: ND indicates no data.

<sup>&</sup>lt;sup>a</sup> Wolverine Creek and other tributaries of Big River Lakes.

<sup>&</sup>lt;sup>b</sup> Includes lakes and streams. Beginning in 1999, includes saltwater shoreline.

Table 34.—Northern Cook Inlet Management Area sport harvest of sockeye salmon by management unit, 2003–2022.

Year	Knik Arm	Eastside Susitna	Westside Susitna	West Cook Inlet	Total
2003	6,606	2,734	8,660	4,708	22,708
2004	7,148	3,107	3,358	3,323	16,936
2005	3,460	1,677	2,219	4,025	11,381
2006	4,622	1,412	626	4,993	11,653
2007	7,030	1,470	3,177	8,187	19,864
2008	6,695	2,975	1,428	5,652	16,750
2009	5,997	7,324	2,358	4,261	19,940
2010	5,630	3,944	1,505	5,232	16,311
2011	3,719	2,459	3,413	4,412	14,003
2012	2,685	4,277	1,118	4,966	13,046
2013	2,749	4,170	5,190	5,003	17,112
2014	2,252	3,325	2,759	6,796	15,132
2015	2,183	1,984	3,427	5,525	13,119
2016	2,657	3,960	3,381	5,738	15,736
2017	1,263	2,297	2,795	5,961	12,316
2018	2,862	3,307	3,483	5,913	15,565
2019	3,143	4,451	6,578	5,139	19,311
2020	2,383	2,719	807	2,744	8,653
2021	2,189	1,598	2,208	6,380	12,375
2022	4,296	2,222	1,205	4,831	12,554
Average					
2012-2021	2,513	3,417	3,277	5,483	14,690
2017–2021	2,368	2,874	3,174	5,227	13,644

Table 35.—Sockeye salmon escapement estimates from the Northern Cook Inlet Management Area, 2004–2023.

		Knik Arm		Eastside Su	sitna River	,	Westside Su	ısitna Rivei	ſ	W	est Cook l	nlet
	Little					Yentna	Chelatna	Judd	Shell	Crescent	Packers	
	Susitna	Fish Ck	Jim Ck	Larson	Stephan	River	Lake	Lake	Lake	River	Creek	Wolverine
Year	R. weir	weir	weir	Lk weir	Lk weir	sonar	weir	weir	weir	sonar	weir a	Creek b
2004	3,035	22,157	NC	NC	NC	71,281	NC	NC	NC	103,183	NC	10,541 <sup>d</sup>
2005	1,700	14,215	NC	9,955	NC	36,921	NC	NC	NC	125,787	22,000	15,625 <sup>d,e</sup>
2006	64	32,562	NC	57,411	NC	92,045	13,266	40,630	69,747	92,533	NC	$2,000^{d,e}$
2007	128	27,948	NC	47,924	4,120	79,901	11,671	58,134	26,784	79,406	46,637	NC
2008	42	19,339	NC	34,595	5,000	90,146	73,469	54,304	2,624	62,030	25,247	NC
2009	74	83,480	NC	40,929	NC	NC	17,865	43,153	4,961	NC	16,473	NC
2010	15	126,836	NC	20,324	NC	NC	37,784	18,361	2,222	86,333	NC	NC
2011	22	66,678	NC	12,190	NC	NC	70,353	39,997	937	81,952	NC	NC
2012	249	18,823	NC	16,566	NC	NC	36,577	18,303	NC	58,838	NC	NC
2013	367	18,912	NC	21,821	NC	NC	70,555	14,088	133	NC	NC	NC
2014	900	43,915	NC	12,040	NC	NC	26,212	22,416	6	NC	19,242	NC
2015	1,499	102,367	4,917	23,185	NC	NC	69,897	47,934	NC	NC	28,072	NC
2016	3,113	46,202	5,094	14,313	NC	NC	61,054	NC	NC	NC	NC	NC
2017	1,189	63,882	4,778	31,687	NC	NC	26,952	35,729	NC	NC	17,164	NC
2018	338	72,157	2,375	23,652	NC	NC	20,437	30,844	NC	NC	16,247	NC
2019	1,386	76,264	1,760	9,689	NC	NC	26,303	44,145	NC	NC	7,719	NC
2020	352	64,234	NC	12,018	NC	NC	NC	31,220	NC	NC	NC	NC
2021	2,194	99,324	NC	21,987	NC	NC	NC	49,250	NC	NC	NC	NC
2022	1,353	58,333	NC	17,436	NC	NC	NC	38,442	NC	NC	15,451	NC
2023	1,361	44,985	298	38,069	NC	NC	NC	NC	NC	NC	NC	NC
Average												
2013–2022	1,269	64,559	3,785	18,783	ND	ND	43,059	34,896	ND	ND	17,316	ND
2018-2022	1,125	74,062	2,068	16,956	ND	ND	ND	38,780	ND	ND	13,139	ND

Source: ADF&G, Division of Sport Fish, Palmer, unpublished data.

Note: NC means no count conducted. ND indicates data insufficient for calculation.

<sup>&</sup>lt;sup>a</sup> A remote camera was used to count fish beginning in 2005.

<sup>&</sup>lt;sup>b</sup> Tributary of Big River Lakes. A remote camera was operated by ADF&G from 2004 to 2006.

<sup>&</sup>lt;sup>c</sup> Hatchery-reared sockeye salmon contributed to Fish Creek drainage escapements in 2004–2010.

d This was an incomplete count because of problems with the video cassette recording (VCR) tapes self-ejecting and because the digital video recorder (DVR) camera system was down for 2 weeks in 2005.

<sup>&</sup>lt;sup>e</sup> Includes 5,000 fish counted at the mouth in 2005 and 2,000 counted in 2006 on the day the camera was pulled.

Table 36.-Bodenburg Creek (Knik River drainage) salmon escapement index surveys, 2004-2023.

			Escapemen	t index
Year	Month	Date	Sockeye salmon	Chum salmon
2004	Aug	26	283	0
2005	Aug	29	269	0
2006	Aug	28	367	6
2007	Aug	24	164	2
2008	Aug	28	442	0
2009	Aug	26	540	0
2010	Aug	30	722	24
2011	Sept	2	493	1
2012	Sept	10	60	18
2013	Aug	28	491	2
2014	Aug	25	315	0
2015	Aug	27	753	17
2016	Aug	29	450	0
2017	Aug	28	467	1
2018	Aug	28	478	0
2019	Aug	29	753	4
2020	Aug	26	402	0
2021	Aug	30	772	2
2022	Aug	30	900	13
2023	Sept	7	513	0
Average				
2013–2022			578	4
2018–2022			661	4

Source: ADF&G foot surveys.

 $\approx$ 

Table 37.-Eastside Susitna River drainage rainbow trout harvest by fishery, 2003-2022.

						_							
	Willow	Little	Kashwitna	Caswell	Sheep	Goose	Montana	Birch	Sunshine	Talkeetna	Other	Other	
Year	Creek	Willow	River	Creek	Creek	Creek	Creek	Creek	Creek	River <sup>a</sup>	streams	lakes	Total
2003	61	65	194	31	163	54	0	0	0	299	305	1409	2,581
2004	144	23	0	0	58	70	0	47	0	157	259	1166	1,924
2005	32	64	11	0	51	22	0	0	0	61	101	451	793
2006	103	94	73	22	52	34	0	12	0	125	43	1032	1,590
2007	10	71	0	0	157	0	0	0	0	186	216	200	840
2008	60	210	61	0	79	138	0	0	178	511	31	253	1,521
2009	62	96	0	0	0	18	0	0	13	34	167	366	756
2010	84	135	9	20	288	239	0	0	0	85	97	869	1,826
2011	0	0	101	202	88	0	0	0	0	154	102	411	1,058
2012	0	0	0	0	21	38	0	50	50	78	53	333	623
2013	0	41	0	0	69	123	0	0	0	208	122	685	1,248
2014	0	185	153	0	312	254	0	0	82	0	14	160	1,160
2015	0	63	0	0	44	33	0	0	0	115	90	123	468
2016	0	194	68	0	43	0	0	0	64	21	147	744	1,281
2017	0	23	0	0	23	0	0	0	0	18	171	582	817
2018	0	0	0	14	0	0	0	0	52	71	51	1,123	1,311
2019	0	0	0	0	0	0	0	53	0	37	34	517	641
2020	0	0	0	0	213	0	0	0	0	328	53	181	775
2021	0	0	0	0	0	0	0	0	0	27	107	85	219
2022	0	182	0	0	0	0	0	0	0	54	0	0	236
Average													
2012–2021	0	51	22	1	73	45	0	10	25	90	84	453	854
2017-2021	0	5	0	3	47	0	0	11	10	96	83	498	753

<sup>&</sup>lt;sup>a</sup> Talkeetna River and tributaries including Clear Creek

Table 38.–Knik Arm drainage rainbow trout harvest for Little Susitna River, Knik River, Wasilla Creek, Cottonwood Creek, Big Lake, Wasilla Lake, Finger Lake, Kepler Lake complex, and Lucille Lake drainages, 2003–2022.

	Little	Knik	Wasilla	Cotton-	Big	Wasilla	Finger	Kepler L.	Big	Lucille
Year	Susitna	River <sup>a</sup>	Creek	wood Ck	Lake b	Lake	Lake	Complex	Lake	Lake
2003	140	0	0	32	11	511	1,326	3,625	884	1,194
2004	93	82	0	290	23	264	1,527	4,423	626	842
2005	51	22	88	44	0	535	1,358	3,657	752	391
2006	166	0	0	115	15	115	1,566	2,419	1,005	996
2007	197	0	0	802	11	131	573	1,903	332	79
2008	147	0	19	199	53	628	2,156	3,696	785	64
2009	79	0	52	9	30	89	893	2,497	299	148
2010	203	0	0	88	117	95	1,520	1,916	551	0
2011	13	24	0	61	0	289	2,095	1,637	887	101
2012	33	0	0	0	0	140	821	973	492	175
2013	101	0	0	0	0	82	1,665	2,698	488	0
2014	12	0	97	376	139	96	942	2,475	703	281
2015	346	0	44	22	88	234	1,768	2,201	923	164
2016	59	0	0	129	64	172	1,773	1,834	710	162
2017	0	0	41	110	18	817	1,185	1,664	711	133
2018	32	0	0	0	0	0	434	1,585	113	390
2019	106	0	0	0	94	38	488	2,887	419	0
2020	142	0	0	654	126	180	2685	3265	493	24
2021	0	0	0	85	221	104	936	1054	221	223
2022	477	0	0	0	191	574	954	2,865	0	427
Average					·			·	·	
2012-2021	83	0	18	138	75	186	1,270	2,064	527	155
2017-2021	56	0	8	170	92	228	1,146	2,091	391	154
·	<u> </u>	·	· ·	· · · · · · · · · · · · · · · · · · ·		· ·	·			· <del></del>

<sup>&</sup>lt;sup>a</sup> Knik River and tributaries including Jim Creek.

<sup>&</sup>lt;sup>b</sup> Big Lake drainage streams.

Table 39.–Knik Arm drainage rainbow trout harvest for Kalmbach Lake, Carpenter Lake, Knik Lake, Memory Lake, Seymour Lake, Bonnie Lakes, Nancy Lake complex, and other lakes and streams, and total KAMU harvest; 2003–2022.

	Kalmbach	Carpenter	Knik	Memory	Seymour	Bonnie	Nancy L.	Other	Other	KAMU
Year	Lake	Lake	Lake	Lake	Lake	Lakes	Complex	streams	lakes	total
2003	98	230	786	247	224	107	1,601	0	6,601	17,617
2004	175	79	226	234	517	26	525	21	7,765	17,738
2005	155	44	66	395	144	22	771	120	5,752	14,367
2006	60	24	521	132	147	231	1,032	19	4,961	13,524
2007	236	29	117	0	69	94	1,078	53	4,909	10,613
2008	49	319	394	107	143	71	174	18	6,515	15,537
2009	61	100	216	502	54	88	274	0	2,590	7,981
2010	117	616	596	113	15	178	15	240	4,465	10,845
2011	0	0	385	290	81	61	40	56	3,490	9,510
2012	488	32	0	0	182	111	0	146	4,701	8,294
2013	164	0	343	321	219	146	102	82	2,784	9,195
2014	0	153	217	209	124	110	107	151	3,094	9,286
2015	0	0	450	499	155	95	414	102	2,760	10,265
2016	23	107	161	136	86	268	379	12	4,420	10,495
2017	29	0	44	183	0	259	259	0	3,922	9,375
2018	0	56	143	139	14	12	251	0	2,989	6,158
2019	0	169	174	170	0	184	43	0	2,236	7,008
2020	0	0	50	1220	0	0	891	8	2,809	12,547
2021	ND	ND	524	307	85	0	217	853	3503	8,333
2022	ND	ND	212	1,438	227	136	68	742	3,139	11,450
Average		·								
2012-2021	78	57	211	318	87	119	266	135	3,322	9,096
2017-2021	7	56	187	404	20	91	332	172	3,092	8,684

Table 40.–Knik Arm drainage rainbow trout catch for Little Susitna River, Knik River, Wasilla Creek, Cottonwood Creek, Big Lake, Wasilla Lake, Finger Lake, Kepler Lake complex, and Lucille Lake drainages, 2003–2022.

	Little	Knik	Wasilla	Cotton-	Big	Wasilla	Finger	Kepler L.	Big	Lucille
Year	Susitna	River <sup>a</sup>	Creek	wood Ck	Lake b	Lake	Lake	Complex	Lake	Lake
2003	1,568	0	130	1,727	206	2,230	5,217	16,575	5,614	4,842
2004	1,368	1,414	0	726	1,239	1,720	5,030	19,991	3,253	2,330
2005	772	259	221	628	33	1,468	4,833	13,823	5,937	1,727
2006	1,583	944	0	1,500	159	224	5,221	12,348	2,975	2,896
2007	995	0	94	3,612	213	657	1,851	9,737	3,039	695
2008	792	0	187	885	53	2,319	6,631	16,838	5,381	755
2009	644	34	496	255	245	774	4,867	14,712	2,963	777
2010	1,071	118	29	440	2,292	271	3,774	10,736	2,699	498
2011	352	35	101	162	20	353	5,444	13,609	5,278	455
2012	288	0	13	33	338	353	3,611	5,902	1,858	576
2013	253	0	0	330	20	475	8,129	18,190	4,033	1,038
2014	163	0	242	985	973	251	4,345	14,784	5,466	1,422
2015	1,544	0	89	44	308	1,047	5,915	12,070	5,677	2,652
2016	1,053	0	0	3,276	107	789	5,485	9,379	1,941	1,705
2017	107	0	122	110	18	4,046	3,351	7,344	3,426	659
2018	133	0	203	357	186	1,053	1,435	5,911	4,205	885
2019	2,893	115	0	0	0	599	3,511	11,039	2,461	830
2020	1,805	0	0	1,465	418	1,510	6,729	22,232	3,027	153
2021	672	28	0	852	675	429	6,434	8,623	7,245	528
2022	622	0	0	285	136	2,399	5,490	10,195	1,216	982
Average										
2012-2021	891	14	67	745	304	1,055	4,895	11,547	3,934	1,045
2017-2021	1,122	29	65	557	259	1,527	4,292	11,030	4,073	611

<sup>&</sup>lt;sup>a</sup> Knik River and tributaries including Jim Creek.

<sup>&</sup>lt;sup>b</sup> Big Lake drainage streams.

Table 41.–Knik Arm drainage rainbow trout catch for Kalmbach Lake, Carpenter Lake, Knik Lake, Memory Lake, Seymour Lake, Bonnie Lakes, Nancy Lake complex, and other lakes and streams, and total KAMU catch; 1990–2017.

	Kalmbach	Carpenter	Knik	Memory	Seymour	Bonnie	Nancy L.	Other	Other	KAMU
Year	Lake	Lake	Lake	Lake	Lake	Lakes	Complex	streams	lakes	total
2003	455	1,685	1,698	343	1989	311	3,767	86	19,769	68,212
2004	1,554	79	862	1,531	587	119	4,184	106	24,804	70,897
2005	464	376	0	1,828	199	508	1,994	485	24,315	59,870
2006	360	271	576	827	202	709	2,828	62	14,379	48,064
2007	870	190	204	278	748	709	2,371	154	14,325	40,742
2008	637	810	2,002	145	933	1,123	8,530	935	18,629	67,585
2009	249	118	277	1,687	274	407	1,711	52	9,441	39,983
2010	323	821	882	158	69	1,046	695	189	16,156	42,267
2011	89	223	1,174	411	613	202	73	283	10,650	39,527
2012	803	49	0	0	538	1,090	283	347	13,799	29,881
2013	1,297	0	596	1,587	423	2,462	676	82	12,418	52,009
2014	70	344	535	349	286	689	1,306	468	13,993	46,671
2015	0	0	2,836	2,646	1594	322	1,116	205	13,734	51,799
2016	718	171	161	446	118	1,780	1,435	30	18,005	46,599
2017	58	976	163	2,436	218	6,899	2,896	177	18,059	51,065
2018	0	331	337	307	227	714	928	251	10,770	28,233
2019	43	1,810	509	2,467	106	853	419	256	12,743	40,654
2020	0	163	151	2,679	238	163	4,042	57	27,499	72,331
2021	ND	ND	740	1,226	568	0	899	2,753	18,313	49,985
2022	ND	ND	2,400	3,297	324	457	605	246	13,431	42,085
Average										
2012–2021	332	427	603	1,414	432	1,497	1,400	463	15,933	46,923
2017-2021	25	820	380	1,823	271	1,726	1,837	699	17,477	48,454

 $\frac{\infty}{3}$ 

Table 42.—Westside Susitna River drainage rainbow trout harvest by fishery, 2003–2022.

	Alexander	Deshka	Rabideux	Yentna	Peters	Lake	Fish	Judd	Other	Other	
Year	Creek	River	Creek	River	Creek	Creek	Creek <sup>a</sup>	Lake	streams	lakes	Total
2003	0	368	ND	154	48	561	77	ND	217	0	1,425
2004	0	938	ND	0	23	587	27	ND	54	0	1,629
2005	0	60	ND	52	11	209	0	ND	7	0	339
2006	0	523	ND	96	39	159	198	0	0	12	1,027
2007	0	185	29	52	117	236	0	0	0	0	619
2008	0	419	0	134	10	153	13	0	0	15	744
2009	0	562	0	86	122	27	0	0	43	25	865
2010	0	122	0	57	0	154	0	0	0	101	434
2011	0	0	20	119	27	143	0	26	72	107	514
2012	0	61	11	0	0	76	0	0	31	0	179
2013	0	103	0	0	0	174	0	0	191	0	468
2014	0	29	0	65	0	568	18	0	192	0	872
2015	0	166	0	17	0	200	0	0	111	0	494
2016	0	32	0	66	63	175	0	0	18	64	418
2017	0	0	0	0	46	40	20	0	15	241	362
2018	0	26	0	159	48	35	0	0	0	87	355
2019	0	0	0	48	0	57	38	0	0	37	180
2020	0	0	0	37	0	43	0	0	32	0	112
2021	0	0	0	0	85	287	0	0	0	125	497
2022	0	0	0	41	0	44	0	ND	168	0	253
Average											
2012-2021	0	42	1	39	24	166	8	0	59	55	394
2017-2021	0	5	0	49	36	92	12	0	9	98	301

Note: ND indicates no data.

<sup>&</sup>lt;sup>a</sup> Fish Lake drainage (Yentna River drainage).

 $\frac{\infty}{4}$ 

Table 43.—Eastside Susitna River drainage rainbow trout catch by fishery, 2003–2022.

	Willow	Little	Kashwitna	Caswell	Sheep	Goose	Montana	Birch	Sunshine	Talkeetna	Other	Other	
Year	Creek	Willow	River	Creek	Creek	Creek	Creek	Creek	Creek	River a	streams	lakes	Total
2003	13,750	3,576	2,315	344	5,289	1,691	12,393	54	97	7,875	5,191	6,865	59,440
2004	10,920	2,293	698	58	1,869	1,835	10,171	540	351	6,384	6,961	4,050	46,130
2005	10,863	2,878	961	11	2,218	685	6,151	133	183	6,772	1,759	3,574	36,188
2006	10,032	1,744	993	46	2,716	1,121	7,610	60	24	7,653	4,997	1,866	38,862
2007	20,905	2,800	163	191	4,244	506	16,740	0	12	8,766	9,005	745	64,077
2008	8,235	2,597	1,068	78	1,769	746	8,014	909	632	7,889	3,649	1,212	36,798
2009	14,700	1,707	558	269	1,137	237	6,474	26	30	6,482	4,156	1,713	37,489
2010	10,689	2,260	24	20	5,495	1,567	6,409	0	14	5,266	4,746	3,468	39,958
2011	19,557	1,109	729	1,242	5,709	976	9,836	91	53	6,769	8,125	3,523	57,719
2012	8,207	602	326	50	870	1,061	8,590	210	441	3,730	2,749	610	27,446
2013	8,973	1,109	103	0	459	2,618	17,636	78	116	7,379	3,641	1,917	44,029
2014	13,566	1,090	1,307	48	1,830	1,924	8,348	89	273	1,990	2,987	447	33,899
2015	14,168	2,326	313	0	2,597	193	8,482	33	89	17,987	2,276	967	49,431
2016	13,238	4,443	728	425	934	2,020	4,514	18	82	4,437	5,553	3,184	39,576
2017	7,116	1,022	137	0	128	229	4,200	0	0	3,398	4,755	4,789	25,774
2018	2,643	1,125	468	70	2,170	665	5,497	0	80	4,280	2,094	2,040	21,132
2019	7,722	890	51	0	1,172	949	5,660	163	51	7,489	1,451	2,225	27,823
2020	18,814	5,736	760	0	2,078	791	19,918	101	29	13,707	15,156	3,290	80,380
2021	11,689	529	962	0	1,611	2,549	3,528	0	81	6,125	13,925	937	41,936
2022	6,408	1,523	402	16	280	1,921	8,064	27	24	439	3,403	94	22,601
Average													
2012-2021	10,614	1,887	516	59	1,385	1,300	8,637	69	124	7,052	5,459	2,041	39,143
2017–2021	9,597	1,860	476	14	1,432	1,037	7,761	53	48	7,000	7,476	2,656	39,409

<sup>&</sup>lt;sup>a</sup> Talkeetna River and tributaries including Clear Creek.

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Table 44.—Westside Susitna River drainage rainbow trout catch by fishery, 2003–2022.

	Alexander	Deshka	Rabideux	Yentna	Peters	Lake	Fish	Talachulitna	Other	Other	
Year	Creek	River	Creek	River	Creek	Creek	Creek a	River	streams	lakes	Total
2003	313	5,868	ND	768	510	22,460	176	9,721	511	0	40,327
2004	220	5,868	ND	1,514	381	22,130	2,411	9,000	150	1,295	42,969
2005	64	3,161	ND	2,521	838	21,197	260	17,060	1,433	41	46,575
2006	402	9,635	ND	1,752	195	28,013	395	2,883	707	36	44,018
2007	106	3,905	58	3,728	663	11,405	173	11,846	152	0	32,036
2008	0	2,070	0	1,974	268	10,267	624	2,249	580	31	18,063
2009	34	3,093	0	2,723	812	10,217	479	6,331	3,766	0	27,455
2010	0	1,334	0	1,886	326	10,011	122	5,242	734	1,130	20,785
2011	43	2,156	101	1,376	53	23,420	0	8,647	2,520	852	39,168
2012	0	556	24	1,238	0	12,321	204	7,109	3,249	17	24,718
2013	123	731	0	794	449	9,015	52	5,433	2,408	1,173	20,178
2014	250	1,951	56	1,169	646	23,717	36	11,032	1,210	766	40,833
2015	0	624	0	439	320	13,955	1,127	12,798	7,251	1,780	38,294
2016	0	924	0	1,080	236	10,052	23	3,914	2,909	268	19,406
2017	87	710	0	1,169	229	2,525	20	737	53	2,010	7,540
2018	119	1,814	0	207	119	4,102	212	1,646	926	0	9,145
2019	0	266	0	541	189	6,204	547	1,465	859	767	10,838
2020	0	525	0	950	0	4,548	94	2,385	796	931	10,229
2021	27	264	0	973	1,018	5,669	0	1,215	4,002	295	13,463
2022	0	848	53	104	106	4,375	740	7,583	2,235	68	16,112
Average											
2012-2021	61	837	8	856	321	9,211	232	4,773	2,366	801	19,464
2017–2021	47	716	0	768	311	4,610	175	1,490	1,327	801	10,243

Note: ND indicates no data.

<sup>&</sup>lt;sup>a</sup> Fish Lake drainage (Yentna River drainage).

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Table 45.-Northern Cook Inlet Management Area sport catch (C) and harvest (H) of northern pike by management unit, 2003–2022.

				Northern	n Cook Inlet	Managen	nent Area							
	Knik	Arm		tside itna	West Susi		West (		To	otal	Southce	ntral Region	Sta	ntewide
Year	Catch <sup>c</sup>	Hrvst	Ctchc	Hrvst	Ctchc	Hrvst	Ctchc	Н	Ctchc	Hrvst	Н	% NCIMA	Н	% NCIMA
2003	14,094	4,026	11	0	14,818	3,816	355	182	16,762	8,024	11,282	71.1	17,388	46.1
2004	11,179	4,961	119	91	21,878	6,626	704	493	22,769	12,171	17,122	71.1	28,799	42.3
2005	11,347	6,160	513	104	25,704	4,889	330	153	26,547	11,306	13,802	81.9	24,819	45.6
2006	14,754	6,664	312	137	15,685	4,318	799	285	16,867	11,404	13,261	86.0	18,184	62.7
2007	6,013	3,050	2,833	1,355	12,640	3,526	225	225	15,822	8,156	11,062	73.7	17,174	47.5
2008	3,612	1,752	4,750	468	15,776	5,683	229	96	20,755	7,999	9,270	86.3	12,959	61.7
2009	10,213	4,647	1,318	385	14,389	3,368	1,983	88	17,690	8,488	12,919	65.7	18,763	45.2
2010	6,031	3,372	6,935	1,033	15,826	5,283	765	225	23,526	9,913	11,093	89.4	16,353	60.6
2011	7,930	5,963	3,508	2,138	3,787	2,969	37	19	7,332	11,089	11,093	100.0	16,353	67.8
2012	5,742	3,231	3,959	79	9,686	4,505	0	0	13,645	7,815	8,580	91.1	12,999	60.1
2013	11,182	9,338	1,630	1,223	19,753	8,168	243	35	32,808	18,764	24,778	75.7	29,218	64.2
2014	7,941	5,067	919	620	5,578	4,021	1,132	0	15,570	9,708	11,024	88.1	11,024	88.1
2015	9,417	10,097	4,309	371	9,548	6,997	70	0	23,344	17,465	21,930	79.6	25,090	69.6
2016	5,804	5,026	1,698	1,658	6,856	4,364	321	321	14,679	11,369	11,867	95.8	15,112	75.2
2017	3,945	3,369	793	654	5,892	5,039	63	32	10,693	9,094	10,540	86.3	12,636	72.0
2018	3,942	2,815	602	480	6,829	4,567	157	157	11,530	8,019	8,833	90.8	11,398	70.4
2019	10,511	7,177	2,315	2,315	6,755	3,102	0	0	19,581	12,594	13,758	91.5	13,758	91.5
2020	11,473	10,021	4,955	4,143	4,291	3,328	13	0	20,732	17,492	16,950	103.2	20,650	84.7
2021	6,689	5,318	656	656	6,087	5,139	0	0	13,432	11,113	12,279	90.5	16,183	68.7
2022	5,968	4,802	1,552	1,127	2,519	1,216	13	0	10,052	7,145	7,517	95.1	9,035	79.1
Average														
2003-2021	8,517	5,371	2,218	943	11,673	4,721	391	122	22,798	11,157	13,234	85	# 17,835	64.4
2017–2021	7,312	5,740	1,864	1,650	5,971	4,235	47	38	15,194	11,662	12,472	92	# 14,925	77.4

Table 46.-Knik Arm drainage northern pike harvest by fishery and total catch, 2003-2022.

	Little	Knik	Figure 8	Cottonwood	Big	Flathorn	Nancy		Harvest	Catch
Year	Susitna	River a	Lake	Creek <sup>b</sup>	Lake c	Lake	Lake d	Other e	total	total
2003	0	0	820	0	24	1,246	1,543	393	4,026	14,094
2004	30	0	2,726	0	0	1,665	1,918	287	6,626	11,179
2005	0	0	1,889	0	12	1,843	1,448	968	6,160	11,347
2006	0	0	2,418	0	71	1,825	2,203	147	6,664	14,754
2007	0	0	825	0	236	1,280	1,749	240	4,330	8,658
2008	0	0	466	0	98	444	1,083	105	2,196	8,011
2009	88	0	547	27	923	245	2,621	441	4,647	10,827
2010	0	0	357	0	215	945	2,379	421	4317	12,827
2011	0	0	2,092	0	297	909	712	4,954	8,964	10,320
2012	0	0	1,002	0	20	563	1,551	95	3,231	9,622
2013	21	0	2,783	0	44	1223	4,225	2,265	10,561	12,577
2014	239	0	1,569	0	605	0	5,344	180	5,067	7,937
2015	0	0	165	6,181	25	680	1,046	470	8,567	10,097
2016	44	0	0	452	0	301	4,322	258	5,377	6,105
2017	0	0	214	661	8	440	1,140	1,560	4,023	4,673
2018	0	0	0	428	139	0	28	981	1,576	3,942
2019	0	0	1,097	966	683	720	4,387	1,141	8,994	10,511
2020	4	0	1681	4,252	35	327	2,690	3,040	12,029	13,531
2021	0	0	328	0	703	116	1,311	3,311	5,769	6,699
2022	0	0	ND	0	448	ND	3,376	978	4,802	5,968
Average										
2012-2021	31	0	884	1,294	226	437	2,604	1,330	6,519	8,569
2017–2021	1	0	664	1,261	314	321	1,911	2,007	6,478	7,871

<sup>&</sup>lt;sup>a</sup> Knik River and tributaries including Jim Creek.

b Includes Anderson Lake.

<sup>&</sup>lt;sup>c</sup> Big Lake and drainage streams.

d Nancy Lake complex lakes.

<sup>&</sup>lt;sup>e</sup> Includes lakes and streams.

 $\frac{\infty}{\infty}$ 

Table 47.—Westside Susitna River drainage northern pike harvest by fishery, 2003–2022.

	Alexander	Deshka	Peters	Lake	Fish	Trapper	Other	Other	
Year	Creek <sup>a</sup>	River	Creek	Creek	Creek <sup>b</sup>	Lake	streams c	lakes	Total
2003	885	143	0	198	792	255	1,190	352	3,815
2004	1,707	336	0	25	329	202	2,147	448	5,194
2005	925	240	0	124	532	1,659	1,209	200	4,889
2006	588	505	0	344	300	923	1,251	407	4,318
2007	677	277	0	0	964	1,138	145	325	3,526
2008	173	168	0	199	177	4,460	377	129	5,683
2009	1,406	455	0	30	229	791	95	1,109	4,115
2010	655	240	0	20	387	880	631	2,470	5,283
2011	3,494	258	0	94	192	377	2,721	4,287	11,423
2012	10	64	0	82	935	753	767	1,894	4,505
2013	2,581	998	0	1,048	341	764	1,903	533	8,168
2014	823	164	0	118	116	1,262	463	1,075	4,021
2015	1,722	237	0	545	524	458	2,930	581	6,997
2016	930	45	0	812	1,302	368	421	486	4,364
2017	3,302	249	0	0	542	132	748	740	5,713
2018	39	177	0	117	151	791	52	3,240	4,567
2019	484	67	0	1,142	570	0	173	844	3,280
2020	0	135	0	80	486	378	1,077	1,625	3,781
2021	19	0	ND	657	668	281	3,521	385	5,531
2022	90	356	0	11	365	229	76	89	1,216
Average									
2012-2021	991	214	0	460	564	519	1,206	1,140	5,093
2017–2021	769	126	0	399	483	316	1,114	1,367	4,574

Note: ND indicates no data.

<sup>&</sup>lt;sup>a</sup> Alexander Creek drainage (Alexander Lake, Sucker Lake).

b Fish Lake drainage (Yentna River drainage).

Table 48.-Number of fish (actual and planned) stocked in Northern Cook Inlet Management Area waters, 2022.

Species/life stage/site	2022	Species/life stage/site	2022
Chinook salmon anadromous smolt		Rainbow trout landlocked catchables (cont.)	
Eklutna Tailrace (Knik River)	439,726	Reed Lake	1,017
Total	439,726	Reflections Lake	498
Coho salmon anadromous smolt		Rocky Lake	1,007
Eklutna Tailrace (Knik River)	113,855	Slipper (Eska) Lake	1,218
Total	113,855	South Rolly Lake	2,044
Coho salmon landlocked fingerlings		Summit Lake	511
Barley Lake	900	Tanaina Lake	1,919
Bear Paw Lake	4,500	Walby Lake	2,054
Carpenter Lake	15,000	Weiner Lake	1,600
Christiansen Lake	12,012	Willow Lake	2,012
Diamond Lake	11,000	Total	69,112
Echo Lake	2,300	Rainbow trout landlocked fingerlings	
Kalmbach Lake	11,000	Barley Lake	3,251
Klaire Lake	900	Bear Paw Lake	3,250
Loberg (Junction) Lake	2,200	Bench Lake	0
Lucille Lake	8,000	Benka Lake	6,000
Victor Lake	2,700	Beverly Lake	5,000
Willow Lake	3,000	Big Beaver Lake	13,003
Wolf Lake	3,000	Brocker Lake	3,251
Total	76,512	Buck (Spider) Lake	3,000
Rainbow trout landlocked catchables		Carpenter Lake	47,685
Anderson Lake	2,976	Caswell #3 Lake	5,000
Bruce Lake	1,503	Christiansen Lake	25,600
Canoe Lake	3,103	Crooked Lake	0
Coyote	481	Crystal Lake	0
Crystal Lake	2,014	Dawn Lake	2,022
Echo Lake	1,018	Diamond Lake	31,326
Gate Lake	634	Echo Lake	0
Irene Lake	2,722	Farmer Lake	1,504
Kashwitna	2,434	Finger Lake	97,932
Kepler/Bradley Lake	10,251	Florence Lake	4,401
Knik Lake	2,812	Golden Lake	2,400
Knob Lake	2,455	Goober Lake	800
Leech Lake	208	Homestead Lake	6,113
Loberg (Junction) Lake	2,678	Honeybee Lake	5,401
Long Lake (Mile 86 Glenn Hwy)	4,020	Ida Lake	6,600
Lucille Lake	4,625	Johnson	0
Matanuska Lake	3,511	Kalmbach Lake	11,000
Meirs Lake	2,043	Kepler/Bradley Lake	0
Memory Lake	2,262	Kings lake	11,000
Mile 180 Lake	1,394	Knob Lake	0
North Knob Lake	552	Lalen Lake	0
Ravine Lake	1,536	Little Beaver Lake	4,400
Reed Lake	1,017	Little Lonely Lake	6,801

Table 48.—Page 2 of 2.

Species/life stage/site	2022	Species/life stage/site	2022
Rainbow trout landlocked fingerlings (cont.)		Arctic grayling	
Loberg (Junction) Lake	0	Canoe Lake	0
Long Lake (K/B)	4,400	Finger Lake	0
Long Mile 86	0	Florence Lake	0
Loon Lake	10,100	Ida Lake	0
Lorraine Lake	31,200	Kepler/Bradley Lake	0
Lucille Lake	0	Knik Lake	0
Lynne Lake	6,589	Lorraine Lake	0
Marion Lake	24,021	Meirs Lake	0
Meirs Lake	0	Reed Lake	0
Morvro Lake	4,000	Ravine Lake	0
North Friend Lake	16,200	Total	0
North Rolly Lake	5,613	Arctic char landlocked catchables	
Peggy Lake	0	Benka Lake	0
Reed Lake	0	Carpenter Lake	2,147
Rhein Lake	8,703	Echo Lake	498
Ruby Lake	2,000	Finger Lake	516
Seventeenmile Lake	32,001	Irene Lake	400
Seymour Lake	24,299	Johnson Lake	0
Slipper (Eska) Lake	0	Long Lake (Mile 86 Glenn Hwy)	300
South Friend Lake	10,401	Lynne Lake	996
Tigger Lake	2,500	Marion Lake	400
Twin Island Lake	8,777	Matanuska Lake	426
Vera Lake	7,200	Memory Lake	259
Visnaw Lake	11,000	Prator Lake	353
Walby Lake	0	Rush Lake	205
Weiner Lake	0	Seventeenmile Lake	879
West Beaver	6,650	Total	7,379
West Sunshine Lake	3,504	Arctic char landlocked fingerlings	
Wishbone Lake	759	Carpenter Lake	0
Wolf Lake	13,539	Finger Lake	5,938
"X" Lake	10,400	Irene Lake	0
"Y" Lake	8,200	Johnson Lake	0
Zero Lake	3,923	Kepler/Bradley Lake	2,968
Total	562,719	Long Lake (Mile 86 Glenn Hwy)	4,674
		Lynne Lake	0
		Matanuska Lake	6,516
		Seventeenmile Lake	2,839
		Total	22,935
		Total anadromous stockings	553,581

Source: ADF&G hatchery records.

Total landlocked stockings

Grand total stockings

738,657 1,292,238

Table 49.—Sport fish effort, catch (C), harvest (H), and percent of catch harvested (%) from stocked lakes in Northern Cook Inlet Management Area, 2022.

			Landlo	cked salı	non <sup>b</sup>	Aı	rctic c	har	Rain	bow tro	out	Arctic	gray	ling	Nort	thern p	oike		Total	
SWHS fishing sites		Percent of total	'	Harv	est		На	rvest		Har	vest		Har	vest		Har	vest		Harv	vest
(53)	Angler-daysa	effort	С	Н	%	С	Н	%	C	Н	%	C	Н	%	С	Н	%	C	Н	%
Benka Bradley (Kepler Lk	143	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
complex)	243	1.6	0	0	0	0	0	0	94	23	24	0	0	0	0	0	0	94	23	24
Brocker		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bruce		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Byers Canoe (Kepler Lk	344	2.2	0	0	0	0	0	0	68	0	0	0	0	0	0	0	0	68	0	0
complex)	39	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carpenter		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Christiansen	320	2.1	23	0	0	0	0	0	26	0	0	0	0	0	0	0	0	49	0	0
Crooked	638	4.1	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	23	0	0
Dawn		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diamond	230	1.5	0	0	0	0	0	0	271	0	0	0	0	0	0	0	0	271	0	0
Echo (Kepler Lk complex)	503	3.2	0	0	0	0	0	0	795	795	100	0	0	0	0	0	0	795	795	100
Eska	79	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finger	4,799	31.0	2538	589	23	235	26	11	5490	954	17	0	0	0	41	0	0	8,304	1,569	19
Florence	201	1.3	0	0	0	0	0	0	212	106	50	0	0	0	0	0	0	212	106	50
Gate		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Honeybee	67	0.4	0	0	0	0	0	0	53	53	100	0	0	0	0	0	0	53	53	100
Kashwitna		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Knik	999	6.4	397	0	0	0	0	0	2400	212	9	0	0	0	0	0	0	2,797	212	8
Knob		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Loberg (Junction)	497	3.2	0	0	0	0	0	0	1426	23	2	0	0	0	0	0	0	1,426	23	2
Little Beaver	87	0.6	0	0	0	0	0	0	136	0	0	0	0	0	0	0	0	136	0	0
Little Lonely Long (Kepler Lk	261	1.7	0	0	0	0	0	0	931	23	2	0	0	0	0	0	0	931	23	2
complex) Long (Mile 86	273	1.8	0	0	0	0	0	0	1365	0	0	0	0	0	0	0	0	1,365	0	0
Glenn Hwy)	612	4.0	0	0	0	45	45	100	443	163	37	26	0	0	0	0	0	514	208	40

Table 49.—Page 2 of 2.

			Landlo	cked sa	lmon <sup>b</sup>	Arc	ctic ch	ar	Rai	nbow tro	ut		rctic yling		Nor	thern pi	ke		Total	
SWHS fishing sites	Angler	Percent of total		Har				vest		Harv			Hr			Har		-	Harv	vest
(53)	-days <sup>a</sup>	effort	C	Н	%	С	Н	%	C	Н	%	C	Н	%	С	Н	%	C	Н	%
Loon	134	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lorraine		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lucille	634	4.1	0	0	0	0	0	0	982	427	43	0	0	0	0	0	0	982	427	43
Lynne Matanuska (Kepler		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lk complex)	269	1.7	0	0	0	0	0	0	670	386	58	0	0	0	0	0	0	670	386	58
Meirs (in Palmer)	349	2.3	0	0	0	0	0	0	772	204	26	0	0	0	0	0	0	772	204	26
Memory North Rolly (Nancy	2,232	14.4	136	136	100	78	22	28	3,297	1438	44	0	0	0	1,114	844	76	4,625	2,440	53
Lk Rec system)		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ravine	68	0.4	0	0	0	0	0	0	114	45	39	0	0	0	0	0	0	114	45	39
Reed	39	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rubys	68	0.4	0	0	0	0	0	0	114	91	80	0	0	0	0	0	0	114	91	80
Seventeenmile	292	1.9	0	0	0	151	0	0	738	204	28	0	0	0	0	0	0	889	204	23
Seymour (was Herring Lk) South Rolly (Nancy	202	1.3	0	0	0	0	0	0	324	227	70	0	0	0	0	0	0	324	227	70
Lk Rec system)	281	1.8	0	0	0	0	0	0	0	0	0	0	0	0	41	41	100	41	41	100
Vera		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Visnaw	144	0.9	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	73	0	0
Walby	184	1.2	0	0	0	0	0	0	712	318	45	0	0	0	0	0	0	712	318	45
Weiner	87	0.6	0	0	0	0	0	0	182	45	25	0	0	0	0	0	0	182	45	25
West Beaver	118	0.8	0	0	0	0	0	0	26	26	100	0	0	0	0	0	0	26	26	100
Wolf X & Y (Talkeetna	57	0.4	0	0	0	0	0	0	49	0	0	0	0	0	0	0	0	49	0	0
Lks)		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	15,493	100	3,094	725	0	509	93	18	21,786	5,763	26	26	0	0	1,196	885	74	26,611	7,466	28

Note: "C" or "catch" is the number of fish harvested plus the number of fish released; "H" or "harvest" is the number of fish kept.

<sup>&</sup>lt;sup>a</sup> The number of days fished is not species-specific, but rather is the number of days fished for all species combined (including species not listed on this table).

b Stocked Chinook salmon.

Table 50.-Northern Cook Inlet Management Area lake stocking summary for nonanadromous fish, 2022.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstocka	Ploidy	Stocking size (g)	Stocking method <sup>b</sup>
Rainbow tro								
	Anderson	55	14 May	2,976	18 Swanson R.	3N	6.4	T
	Barley	8	3 Jun	3,251	18 Swanson R.	3N	4.8	T/BU
	Bearpaw	18	24 May	3,250	18 Swanson R.	3N	4.6	T/BU
	Bench	123	27 May	6,000	18 Swanson R.	3N	20.5	T/BU
	Benka	42	27 May	5,000	18 Swanson R.	3N	4.6	T
	Big Beaver	161	28 May	3,041	18 Swanson R.	3N	3.9	T
			29 May	9,962	18 Swanson R.	3N	4.6	T
	Brocker	44	3 Jun	3,251	18 Swanson R.	3N	4.8	T/BU
	Bruce	27	4 Jun	1,503	18 Swanson R.	2N/3N	205	T
	Buck (Spider)	23	28 Jun	3,000	18 Swanson R.	3N	6.4	T/4W
	Canoe	21	11 May	466	18 Swanson R.	2N	164	T/BU
			12 May	1,398	18 Swanson R.	3N	164	T
	Carpenter	176	24 May	13,000	18 Swanson R.	3N	4.8	T
			20 Jun	34,685	18 Swanson R.	3N	4.6	T
	Caswell #3	33	27 May	5,000	18 Swanson R.	2N/3N	2.8	T/BU
	Christiansen	179	29 May	8,600	18 Swanson R.	3N	2.8	T
			20 Jun	17,000	18 Swanson R.	3N	2.8	T
	Coyote	2	22 Jun	481	18 Swanson R.	3N	206	T
	Crystal	132	4 Jun	2,014	18 Swanson R.	3N	205	T
	Dawn	12	4 Jun	2,022	18 Swanson R.	2N/3N	2.8	T/BU
	Diamond	139	25 May	15,122	18 Swanson R.	2N/3N	3.9	T
	Farmer	21	3 Jun	1,504	18 Swanson R.	2N/3N	2.8	T/BU
	Finger	362	24 May	27,110	18 Swanson R.	3N	2.8	T
	C		10 Jun	70,000	18 Swanson R.	3N	2.8	T
	Florence	55	28 May	4,401	18 Swanson R.	2N/3N	4.6	T/BU
	Gate	9	14 Jun	634	18 Swanson R.	3N	206	T
	Golden	13	27 Jun	2,400	18 Swanson R.	2N/3N	4.6	T
	Goober	NA	26 Jun	800	18 Swanson R.	3N	2.8	T/4W
	Homestead	17	4 Jun	6,113	18 Swanson R.	2N/3N	2.8	T/BU
	Honeybee	58	28 Jun	5,401	18 Swanson R.	2N/3N	2.8	T/BU
	Ida	46	26 May	11,602	18 Swanson R.	2N/3N	2.8	T/BU

Table 50.—Page 2 of 5.

				Number			Stocking	Stocking
Species	Lake	Surface acres	Stocking date	stocked	Broodstock <sup>a</sup>	Ploidy	size (g)	method b
Rainbow trout	c (cont.)							
	Irene	18	22 Jun	2,722	18 Swanson R.	3N	164	T/BU
	Kalmbach	125	27 May	11,000	18 Swanson R.	2N/3N	4.6	T
	Kashwitna	161	20 May	2,434	18 Swanson R.	3N	205	T
	Kepler-Bradley	58	7 May	4,884	18 Swanson R.	2N/3N	206.4	T
			16 Jun	4,944	18 Swanson R.	2N/3N	172	T
			30 Aug	423	18 Swanson R.	2N	1200	T
			25 Apr	4,026	18 Swanson R.	2N	164	T
	Knik	50	15 May	2,812	18 Swanson R.	3N	193	T
	Knob	52	15 Jun	2,812	18 Swanson R.	3N	206	T
	Leech	NA	12 May	208	18 Swanson R.	3N	205	T
	Little Beaver	44	31 May	4,400	18 Swanson R.	3N	2.8	T
	Little Lonely	56	28 May	6,801	18 Swanson R.	2N/3N	2.8	T
	Loberg	11	31 Aug	221	18 Swanson R.	2N	164	T
	_		7 May	2,458	17 Swanson R.	2N/3N	301.7	T
	Long [K/B]	74	26 May	4,400	18 Swanson R.	3N	4.617	T/BU
	Long (Mi. 86)	106	15 Jun	3,800	18 Swanson R.	2N/3N	206.4	T
			30 Aug	220	17 Swanson R.	2N	1200	T
	Loon	108	25 May	1,440	18 Swanson R.	2N/3N	4.59	T
			20 Jun	10,000	18 Swanson R.	3N	3.9	T
	Lorraine	132	25 May	11,200	18 Swanson R.	3N	4.8	T/4W
			20 Jun	20,000	18 Swanson R.	3N	4.6	T
	Lucille	362	8 May	4,625	18 Swanson R.	2N/3N	193	T
	Lynne	70	23 May	6,589	18 Swanson R.	2N/3N	4.6	T
	Marion	113	23 May	7,000	18 Swanson R.	3N	3.9	T/BU
			21 Jun	17,021	18 Swanson R.	2N/3N	3.9	T/BU
	Matanuska	62	15 May	3,511	18 Swanson R.	2N	164	T
	Meirs	17	9 May	2,043	18 Swanson R.	2N/3N	164	T
	Memory	84	20 May	2,262	18 Swanson R.	2N/3N	206	T
	Mile 180	31	14 Jun	1,394	18 Swanson R.	3N	206	T/BU
	Morvro	74	27 May	4,000	18 Swanson R.	2N/3N	75.4	T/BU

Table 50.—Part 3 of 5.

				Number			Stocking	Stocking
Species	Lake	Surface acres	Stocking date	stocked	Broodstock <sup>a</sup>	Ploidy	size (g)	method b
Rainbow trout (cont.)								
	North Friend	81	20 May	12,000	18 Swanson R.	3N	2.8	T/BU
			10 Jun	4,752	18 Swanson R.	3N	2.8	T/BU
	North Knob	36	5 May	552	18 Swanson R.	3N	206	T/BU
	North Rolly	122	4 Jun	5,613	18 Swanson R.	3N	4.6	T/BU
	Ravine	12	14 Jun	1,536	18 Swanson R.	2N/3N	205	T/BU
	Reed	20	3 Jun	1,017	18 Swanson R.	2N/3N	191	T/BU
	Reflections	21	11 Jun	498	18 Swanson R.	3N	152.53	T/BU
	Rhein	84	4 Jun	8,643	18 Swanson R.	3N	4.6	T/BU
	Rocky	59	4 Jun	1,007	18 Swanson R.	3N	205	T
	Seventeenmile	100	21 Jun	21,601	18 Swanson R.	3N	4.6	T
			26 May	10,400	18 Swanson R.	3N	4.6	T
	Seymour	229	25 May	24,299	18 Swanson R.	2N/3N	4.6	T
	Slipper	9	15 May	1,218	18 Swanson R.	3N	191	T
	South Friend	56	2 Jun	10,401	18 Swanson R.	3N	20.5	T/BU
	South Rolly	44	6 Jun	2,044	18 Swanson R.	3N	6.1	T/BU
	Summit	NA	7 Jul	511	18 Swanson R.	3N	4.6	T/BU
	Tanaina	109	6 Jun	1,919	18 Swanson R.	3N	191	T/BU
	Tigger	19	2 Jun	2,500	18 Swanson R.	2N/3N	4.4	T/BU
	Twin	21	28 Jun	3,793	18 Swanson R.	3N	5	T/BU
	Twin Island	151	3 Jun	4,804	18 Swanson R.	3N	2.8	T/4W
	Vera	111	28 May	7,200	18 Swanson R.	3N	4.6	T/BU
	Visnaw	131	28 May	11,000	18 Swanson R.	3N	3.9	T
	Walby	54	9 Jun	2,054	18 Swanson R.	3N	206	T
	Weiner	21	15 Jun	2,487	18 Swanson R.	3N	206	T
	West Beaver	103	15 Jun	1,600	18 Swanson R.	3N	4.6	T
	West Sunshine	22	2 Jun	3,504	18 Swanson R.	3N	20.5	T/BU
	Willow	143	7 Jun	2,012	18 Swanson R.	3N	205	T
	Wolf	62	26 May	10,539	18 Swanson R.	2N/3N	4.6	T/BU
	X	38	10 Jun	10,400	18 Swanson R.	3N	5.2	T/BU
	"Y"	40	10 Jun	8,200	18 Swanson R.	3N	4.6	T/BU
	Zero	25	27 May	3,923	18 Swanson R.	3N	5.2	T/BU

Table 50.—Part 4 of 5.

Charies	Lake	Surface	Stocking date	Number stocked	Broodstock <sup>a</sup>	Ploidy	Stocking	Stocking method b
Species Rainbow trout (cont.)	Lake	acres	date	Stocked	Droodstock "	Ploluy	size (g)	memod
Rambow trout (cont.)	Total for 71 lakes			602,664				
Coho salmon (nonanadromous)	Total for /1 lakes			002,004				
Cono sannon (nonanadromous)	Barley	8	19 May	900	18 Ship Creek	3N	4.002	T/BU
	Bearpaw	18	19 May	4,500	18 Ship Creek	3N	4.002	T/BU
	Carpenter	176	19 May	15,000	18 Ship Creek	3N	2.8	T/BU
	Christiansen	179	21 May	12,012	18 Ship Creek	3N	4	T
	Diamond	139	19 May	11,000	18 Ship Creek	3N	4.002	T
	Echo	23	21 May	2,300	18 Ship Creek	3N	4	T
	Kalmbach	125	19 May	11,000	18 Ship Creek	3N	3.545	T
	Klaire	7	30 May	900	18 Ship Creek	3N	3.545	T
	Loberg	11	18 May	2,200	18 Ship Creek	3N	4	T
	Lucille	362	18 May	8,000	18 Ship Creek	3N	4	T
	Victor	14	19 May	2,700	18 Ship Creek	3N	3.545	T/BU
	Willow	143	19 May	3,000	18 Ship Creek	3N	4	T/BU
	Wolf	62	18 May	3,000	18 Ship Creek	3N	4	T/BU
	Total for 13 lakes	1,267		76,512	•			
Arctic char								
	Carpenter	168	24 May	2,147	17 Aleknagik L.	3N	155.9	T
	Echo	23	25 May	498	17 Aleknagik L.	2N/3N	206	T
	Finger	362	25 May	516	15 Aleknagik L.	2N/3N	2400	T
	C		19 Jun	630	17 Aleknagik L.	3N	333	T
			25 Jun	1,027	17 Aleknagik L.	2N/3N	4.6	T
			8 Sep	3,911	17 Aleknagik L.	2N/3N	4.8	T
			28 Oct	203	17 Aleknagik L.	2N	168	T
	Irene	18	22 Jun	400	17 Aleknagik L.	3N	168.18	T
	Kepler-Bradley	58	8 Sep	1,928	17 Aleknagik L.	2N/3N	333	T
	Long (Mile 86)	106	22 May	300	16 Aleknagik L.	2N	941.4	T
			8 Sep	4,674	17 Aleknagik L.	2N/3N	253.9	T
	Lynne	70	28 May	996	17 Aleknagik L.	3N	254	T
	Marion	113	23 May	400	17 Aleknagik L.	3N	168.18	T

Table 50.—Part 5 of 5.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock <sup>a</sup>	Ploidy	Stocking size (g)	Stocking method <sup>b</sup>
Arctic char (continued)								
	Matanuska	62	19 Jun	2,468	17 Aleknagik L.	2N/3N	333	T
			8 Sep	2,474	17 Aleknagik L.	2N/3N	173	T
	Memory	84	23 May	259	17 Aleknagik L.	3N	168.18	T
	Prator	98	23 May	353	17 Aleknagik L.	3N	168.18	T
	Seventeenmile	100	21 May	1691	17 Aleknagik L.	2N/3N	206	T
	Total for 12 lakes			24,875				
Chinook salmon								
(nonanadromous)	Finger	362	27 Sep	8,386	NA	2N/3N	127.5	T
			30 Sep	10,212	NA	2N/3N	121.9	T
			6 Oct	7,481	NA	2N/3N	138.9	T
	Knik	50	4 Oct	3,216	NA	2N/3N	121.9	T
	Matanuska	62	5 Oct	2,815	NA	2N/3N	133.2	T
	Memory	84	4 Oct	2,038	NA	2N/3N	133.2	T
	Total for 4 lakes (catchables)	558		34,148				

Source: ADF&G Hatchery records.

*Note*: All stocked fish came from the William J. Hernandez Sport Fish Hatchery.

<sup>&</sup>lt;sup>a</sup> Treatment: triploid all female.

b "T" is tank truck; "T/BU" means fish were carried in buckets to lake; "T/4W" means transported by 4-wheeler.

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Table 51.–Eulachon (smelt) personal use harvest from Knik Arm and Westside Susitna River management units, 2003–2022.

	Knik	Arm Manag	gement Uni	t		Wests	side Susitna N	Management	t Unit		
	Marine	•			Alex-						
	Fish	Other	Fresh	Sub-	ander	Deshka	Yentna	Lake	Susitna		
Year	Creek	marine	water	total	Creek	River	River	Creek	River	Subtotal	Total
2003	0	1,214	364	1,578	911	0	0	0	4,554	5,465	7,043
2004	0	0	11	11	0	2,550	2,252	0	7,760	12,562	12,573
2005	0	0	0	0	0	1,979	0	0	1,089	3,068	3,068
2006	0	0	71	71	0	0	0	0	0	0	71
2007	124	0	0	124	0	0	0	0	620	620	744
2008	0	0	0	0	0	1,095	0	0	737	1,832	1,832
2009	0	0	0	0	0	0	0	0	3,520	3,520	3,520
2010	0	0	0	0	0	0	2,510	0	2,133	4,643	4,643
2011	0	0	0	0	0	0	0	0	6,763	6,763	6,763
2012	0	0	0	0	0	0	3,290	0	0	3,290	3,290
2013	0	0	0	0	0	0	80	0	1,624	1,704	1,704
2014	0	0	0	0	0	0	0	0	1,213	1,213	1,213
2015	0	0	0	0	0	0	1,015	0	0	1,015	1,015
2016	0	0	0	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	5,218	5,218	5,218
2020	0	0	0	0	0	0	593	0	593	593	593
2021	0	0	0	0	0	0	0	0	1,436	1,436	1,436
2022	0	0	0	0	0	0	0	0	1,552	1,552	1,552
Average											
2012–2021	0	0	0	0	0	0	498	0	1,008	1,447	1,447
2017–2021	0	0	0	0	0	0	119	0	1,449	1,449	1,449

Table 52.-Fish Creek salmon harvests by personal use dip net, 2004–2023.

Year	Sockeye	Coho	Chum	Pink	Chinook	Total
2003			No fishery			
2004			No fishery			
2005			No fishery			
2006			No fishery			
2007			No fishery			
2008			No fishery			
2009	9,898ª	53	33	66	10	10,060
2010	$23,705^{b}$	3,576	290	1,721	12	29,303
2011	5,236°	905	72	155	2	6,370
2012			No fishery			
2013			No fishery			
2014	5,829 <sup>d</sup>	1,895	227	4,218	0	12,169
2015	19,260e	3,321	329	1,329	0	24,239
2016			No fishery			
2017	$4,894^{\rm f}$	281	54	273	1	5,503
2018	18,659 <sup>g</sup>	1,779	208	880	5	21,531
2019	15,886 <sup>h</sup>	1,508	195	1,110	2	18,701
2020	$28,109^{i}$	1,736	337	1,369	7	31,558
2021	14,558 <sup>j</sup>	1,029	63	604	3	16,257
2022	$35,656^{k}$	650	261	1,067	0	37,634
2023	20,8911	599	172	1,099	1	22,762
Average						
2004-2023	12,876	1,310	201	830	5	14,741

<sup>&</sup>lt;sup>a</sup> Opened by EO at 6:00 AM August 1 through 11:00 PM August 11.

<sup>&</sup>lt;sup>b</sup> Opened by EO at 6:00 AM July 24 through 11:00 PM July 31.

<sup>&</sup>lt;sup>c</sup> Opened by EO at 6:00 AM July 29 through 11:00 PM July 31.

<sup>&</sup>lt;sup>d</sup> Opened by EO at 6:00 AM July 25 through 11:00 PM July 31.

<sup>&</sup>lt;sup>e</sup> Opened by EO at 6:00 AM July 24 through 11:00 PM July 31.

f Opened by EO at 6:00 AM July 26 through 11:00 PM July 31.

g Opened by EO at 6:00 AM July 24 through 11:00 PM July 31.

<sup>&</sup>lt;sup>h</sup> Opened by EO at 6:00 AM July 26 through 11:00 PM July 31.

i Opened by EO at 6:00 AM July 19 through 11:00 PM July 31.

j Opened by EO at 6:00 AM July 24 through 11:00 PM July 31.

<sup>&</sup>lt;sup>k</sup> Opened by EO at 6:00 AM July 21 through 11:00 PM July 31.

Opened by EO at 6:00 AM July 22 through 11:00 PM July 31.

Table 53.-Upper Yentna River subsistence fish wheel salmon harvest, 2004-2023.

	Number	of permits			Salı	non har	vest (nun	nber of fi	sh)
Year	Issued	Returned	Chinook	Sockeye	Coho	Pink	Chum	Total	Harvest/permit
2004	21	19	NA	441	146	3	36	625	30
2005	18	17	NA	177	42	25	24	268	15
2006	22	22	NA	368	175	26	14	583	27
2007	22	22	NA	367	66	18	17	468	21
2008	16	16	NA	310	57	7	23	397	25
2009	17	17	NA	253	14	6	0	273	16
2010	32	32	NA	642	50	18	38	748	23
2011	25	25	NA	598	90	21	337	1,046	42
2012	21	21	NA	279	24	19	21	343	16
2013	22	19	NA	160	92	32	128	412	19
2014	20	18	NA	328	84	32	17	460	23
2015	29	27	NA	578	151	69	47	845	29
2016	26	25	NA	514	204	37	36	790	30
2017	26	26	NA	454	185	10	47	696	27
2018	29	29	16	405	167	8	10	606	21
2019	24	22	0	476	107	40	18	641	27
2020	24	24	5	393	155	18	16	587	24
2021	25	25	13	549	186	5	11	764	31
2022	18	18	9	217	72	16	28	342	19
2023	18	18	0	374	32	4	2	412	23
Mean									
2013-2022	24	23	9	407	140	27	36	614	25
2018–2022	24	24	9	408	137	17	17	588	24

*Source*: Permits returned to ADF&G. *Note*: NA means not applicable.

Table 54.-Beluga River senior personal use dip net fishery summary, 2008-2023.

	Number	of permits	Number of permits fished			Reported harvest				
Year	Issued	Returned	Boat	Shore	Total	Sockeye	Chum	Coho	Pink	Total
2008	20	20	2	3	5	31	0	35	0	66
2009	11	11	4	6	10	140	0	78	7	225
2010	14	9	3	2	5	47	5	1	0	53
2011	13	12	5	2	7	137	5	17	0	159
2012	7	7	2	2	4	9	0	7	0	16
2013	8	8	4	1	5	30	1	55	2	88
2014	10	10	4	3	7	32	1	12	1	46
2015	8	8	0	3	3	65	0	17	0	82
2016	11	10	0	3	9	52	2	45	2	101
2017	9	6	1	5	6	26	0	36	4	66
2018	10	10	1	5	6	37	0	17	0	54
2019	13	10	3	5	8	166	0	44	4	214
2020	15	10	4	6	10	35	1	74	3	113
2021	12	9	0	9	9	124	0	58	0	182
2022	8	7	0	6	6	9	0	22	0	31
2023	9	9	3	2	5	130	1	62	1	194
Average										
2013-2022	10	9	2	5	7	58	1	38	2	98
2018-2022	12	9	2	6	8	74	0	43	1	119

Source: Permits returned to ADF&G.

Table 55.—Tyonek subsistence gillnet salmon harvest, 2003–2022.

-	Number o	f permits	Salmon harvest (number of fish)					
Year	Issued	Returned	Chinook	Sockeye	Coho	Pink	Chum	Total
2003	87	74	1,384	136	54	12	9	1,595
2004	97	75	1,751	121	168	0	0	2,042
2005	78	67	1,183	65	159	2	0	1,409
2006	82	55	1,366	32	23	1	0	1,422
2007	84	67	1,526	249	164	3	4	1,946
2008	94	77	1,492	146	227	11	16	1,892
2009	89	69	817	229	320	2	1	1,369
2010	105	77	1,116	281	223	3	3	1,626
2011	114	63	851	202	34	10	10	1,107
2012	89	69	1,102	223	174	3	5	1,507
2013	82	48	1,352	278	311	0	32	1,973
2014	92	73	896	487	575	15	5	1,978
2015	83	72	1,070	505	568	16	6	2,165
2016	74	64	1,030	188	225	8	12	1,462
2017	74	49	1,304	442	306	31	6	2,089
2018	65	42	1,042	146	155	6	13	1,362
2019	67	42	1,062	264	137	16	5	1,484
2020	54	17	1,180	161	387	0	0	1,728
2021	47	10	1,022	93	89	0	0	1,204
2022	35	19	954	102	41	0	0	1,096
Average								
2012-2021	61	32	1,122	221	215	11	5	1,573
2017–2021	73	49	1,106	279	293	9	8	1,695

Source: ADF&G Division of Subsistence.

Table 56.—Susitna River personal use dipnet harvest, 2020–2022.

	Days	Days _	S				
Year	open	fished	Sockeye	Coho	Pink	Chum	Total
2020	6	377	2,296	538	747	68	3,671
2021	7	210	1,385	902	426	111	2,824
2022	6	236	2,201	727	233	172	3,334
2023	6	264	3,722	929	230	257	5,138
Average							
2020–2022	6	274	1,961	722	469	117	3,276

Table 57.—Salmon harvests by educational fishery permit holders in Northern Cook Inlet Management Area, 2004–2023.

		Dates of		Salmo	n harvest (1	number	of fish)	
Permit holder	Year	operation	Chinook	Coho	Sockeye	Pink	Chum	Total
Knik Tribal Coun		<u> </u>						
	2004	May 15-Aug 06	105	207	142	20	29	503
	2005	May 17–Aug 15	25	80	200	9	16	330
	2006	May 15–Sep 30	24	75	197	12	7	315
	2007	May 15–Sep 30	19	75	7	0	16	117
	2008	May 15–Jul 19	12	70	79	0	0	161
	2009	Jul 1-Sep 30	0	79	66	1	8	154
	2010	Jul 06–24	0	94	72	21	61	248
	2011	Jul 1-Sep 30	0	8	61	1	0	70
	2012	Jul 10-Jul 12	0	6	48	0	4	58
	2013	Jul 29	0	31	26	4	52	113
	2014	Aug 1-Aug 10	0	62	14	0	0	76
	2015	Aug 1-Aug 11	0	15	43	1	21	80
	2016	Jul 10-21	99	22	48	12	17	198
	2017	Jul 10-21	0	22	48	12	17	99
	2018	Jul 9-Aug 06	0	50	100	0	12	162
	2019	July 9-Aug 6	0	2	27	1	0	30
	2020	July 20-Aug 3	0	49	121	19	102	291
	2021	July 15-28	0	48	98	15	54	215
	2022	July 11-25	0	42	77	18	40	177
_	2023	July 10–August	0	43	91	1	64	199
	Average							
	2004-2022		15	55	78	8	24	179
<u>-</u>	2018–2022		0	38	85	11	42	175
Eklutna Village								
	2004	May 01–Sep 30	50	297	311	4	71	733
	2005	May 01–Sep 30	72	242	166	8	29	517
	2006	May 01–Sep 30	43	199	59	11	7	319
	$2007^{a}$	May 01–Sep 30						
	2008	May 01-Sep 32	16	178	19	3	0	216
	2009	Jul 01–Sep 30	0	221	135	20	23	399
	2010	Jul 01-Sep 30	0	162	216	7	30	415
	2011	Jul 01-Sep 30	0	282	343	32	47	704
	2012	Jul 01–Sep 30	0	242	218	10	63	533
	2013	Jul 01–Sep 30	0	52	124	2	18	196
	2014	Jul 01-Sep 30	0	48	248	13	24	333
	2015	Jul 01-Sep 30	0	41	237	9	48	335
	2016	Jul 01-Sep 30	0	0	2	0	0	0
	2017	Jul 01-Sep 30	0	24	128	9	31	192
	2018	Jul 01-Sep 30	0	48	77	0	11	136
	2019	July 1-Sept 30	0	72	49	4	16	141
	2020	July 1-Aug 16	0	194	124	12	13	343
	2021	July 1–Sept 30	0	57	157	6	17	237
	2022	July1–Aug 7	0	77	146	22	5	250
	2023	July1–August 13	0	63	198	3	36	300
-	Average	, ,						
	1994–2018		10	135	153	10	25	314
	2014–2018		0	90	111	9	12	221
Source: Permit data re			U	90	111	)	12	22 I

Source: Permit data returned to ADF&G

<sup>&</sup>lt;sup>a</sup> No report.

## **FIGURES**

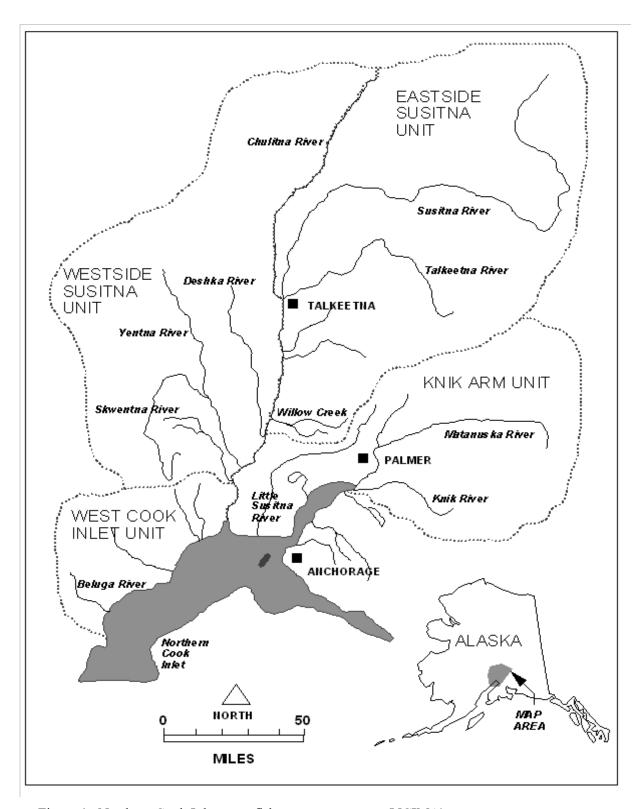


Figure 1.-Northern Cook Inlet sport fish management area (NCIMA).

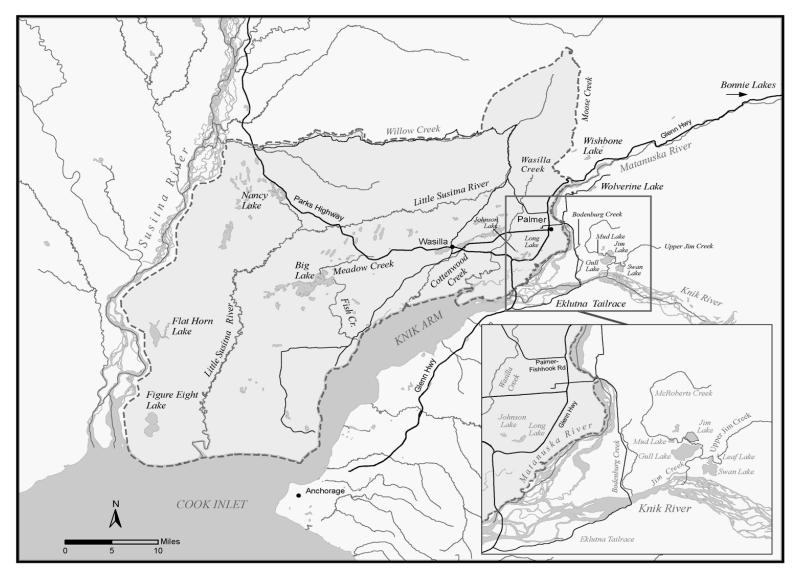


Figure 2.-Map showing the boundary of the Knik Arm Management Unit (KAMU) and freshwater drainages therein.

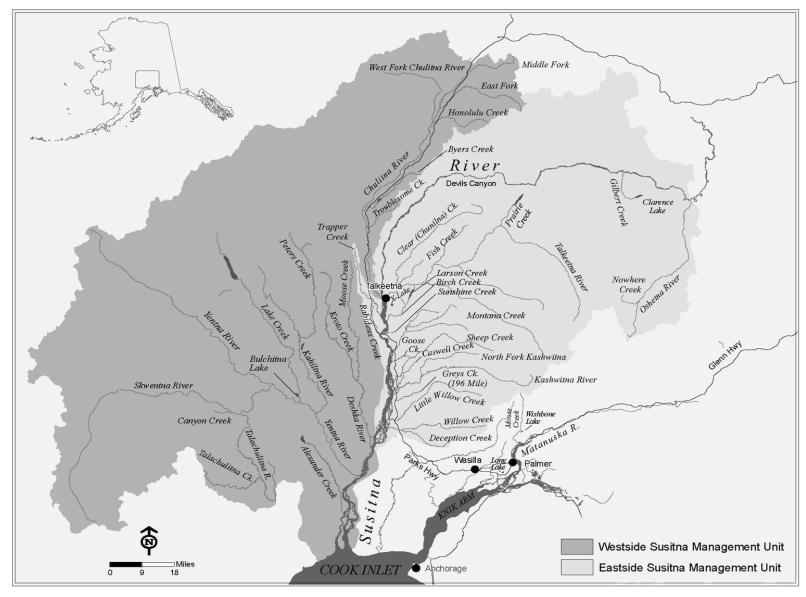


Figure 3.-Susitna River drainages including the Eastside (ESMU) and Westside (WSMU) Susitna Management Units.

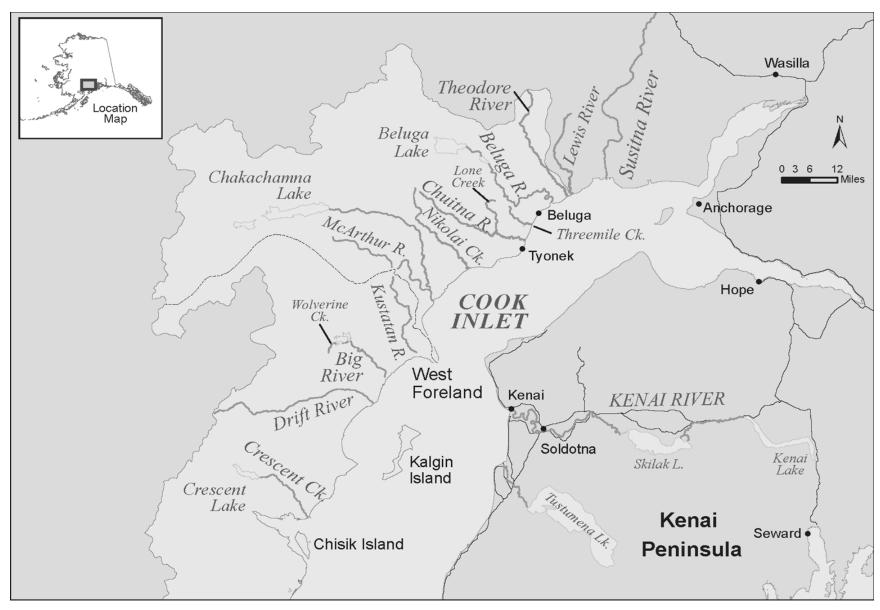


Figure 4.-West Cook Inlet Management Unit (WCIMU).

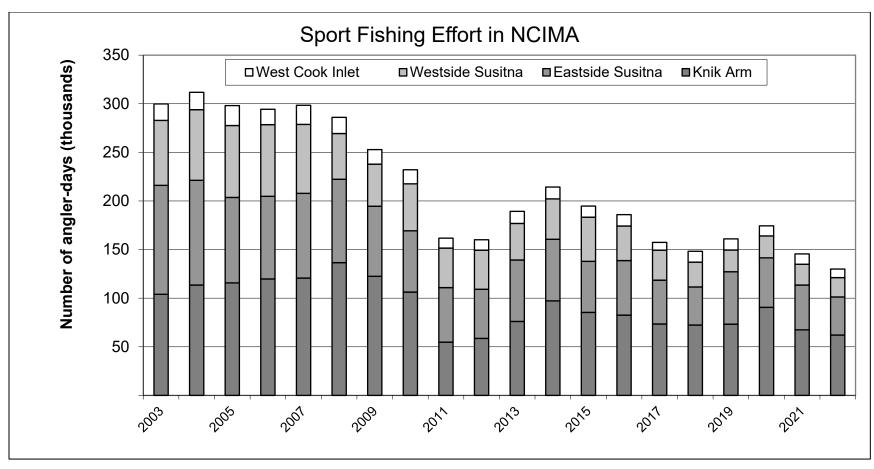


Figure 5.–Angler-days of sport fishing effort expended by recreational anglers fishing Northern Cook Inlet Management Area (NCIMA) waters, 2003–2022.

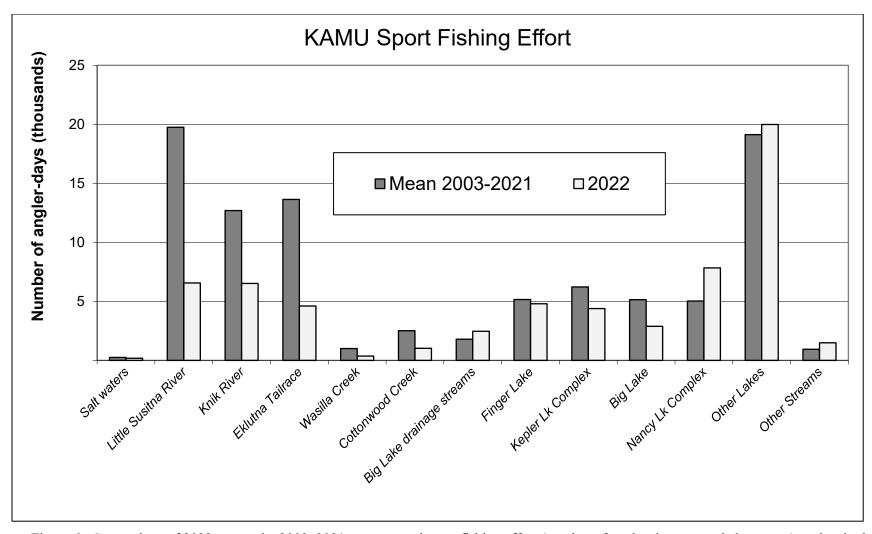


Figure 6.—Comparison of 2022 versus the 2003–2021 mean annual sport fishing effort (number of angler-days expended per year) at sites in the Knik Arm Management Unit (KAMU).

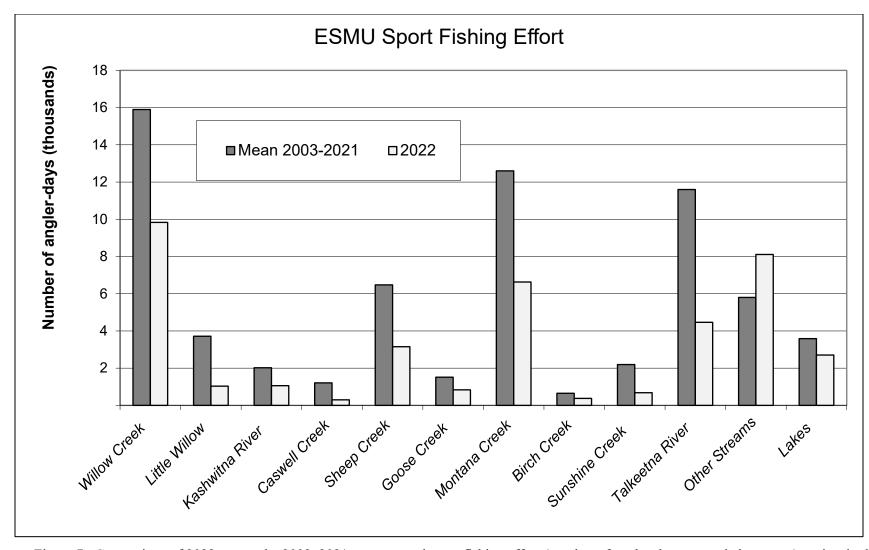


Figure 7.—Comparison of 2022 versus the 2003–2021 mean annual sport fishing effort (number of angler-days expended per year) at sites in the Eastside Susitna Management Unit (ESMU).

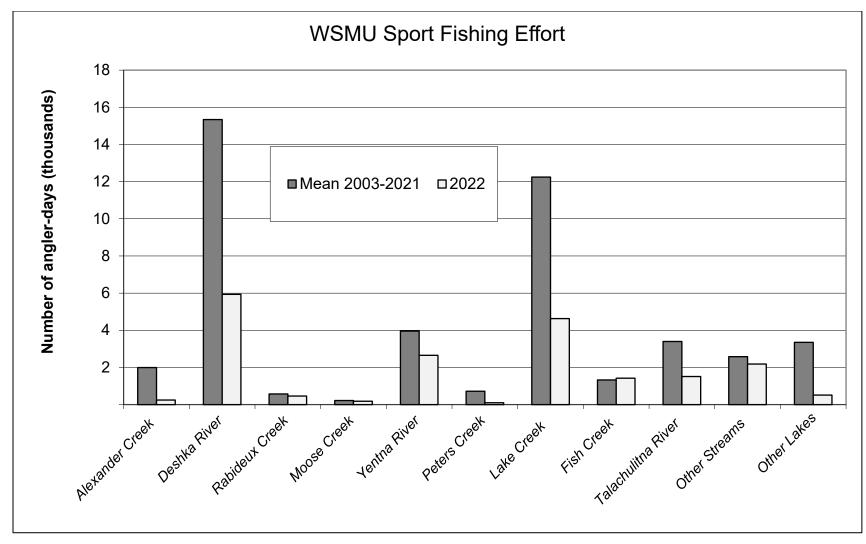


Figure 8.—Comparison of 2022 versus the 2003–2021 mean annual sport fishing effort (number of angler-days expended per year) at sites in the Eastside Susitna Management Unit (WSMU).

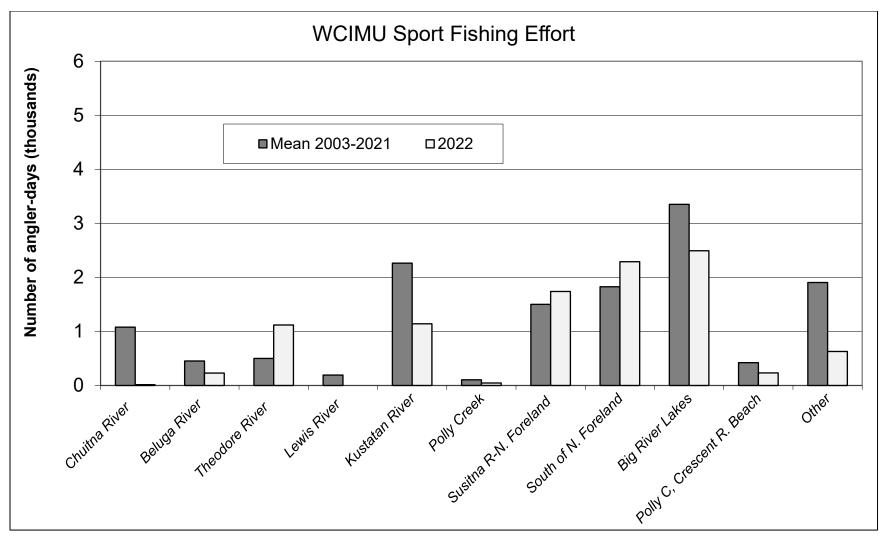


Figure 9.—Comparison of 2022 versus the 2003–2021 mean annual sport fishing effort (number of angler-days expended per year) at sites in the West Cook Inlet Management Unit (WCIMU).

Note: Big River Lakes is the Big River drainage including Wolverine Creek.

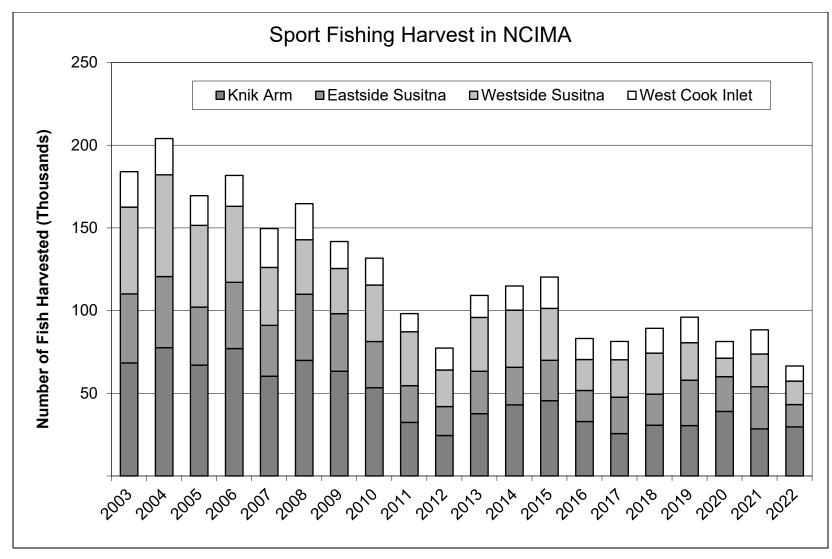


Figure 10.-Sport fishing harvest by recreational anglers fishing Northern Cook Inlet Management Area (NCIMA) waters, 2003-2022.

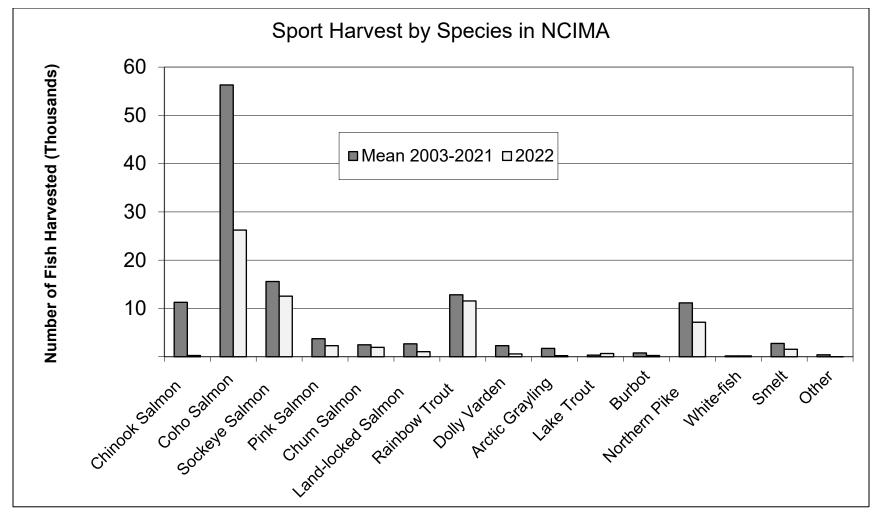


Figure 11.—Comparison of 2022 versus the 2003–2021 mean annual sport fishing harvest by species in Northern Cook Inlet Management Area. *Source*: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2024). Available

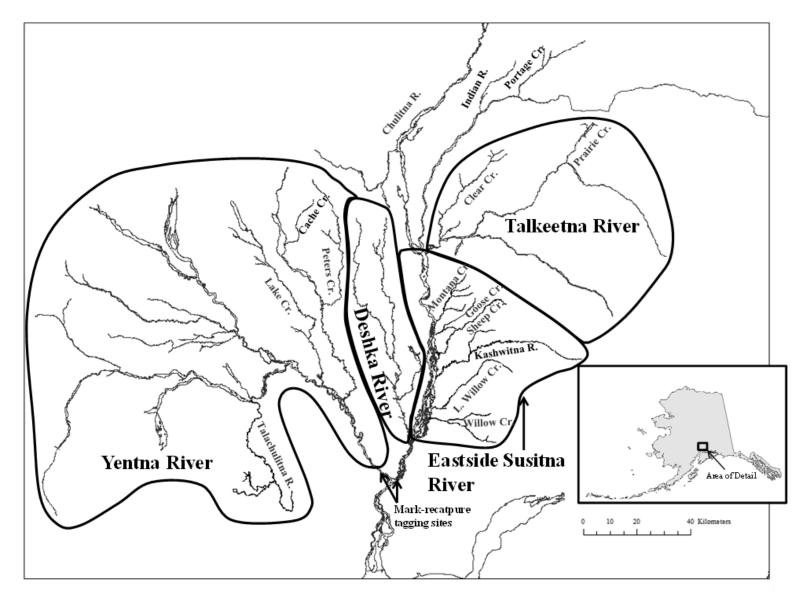


Figure 12.—Boundaries of the four Susitna River drainage stock groups: Yentna River, Deshka River, Eastside Susitna River, and Talkeetna River.

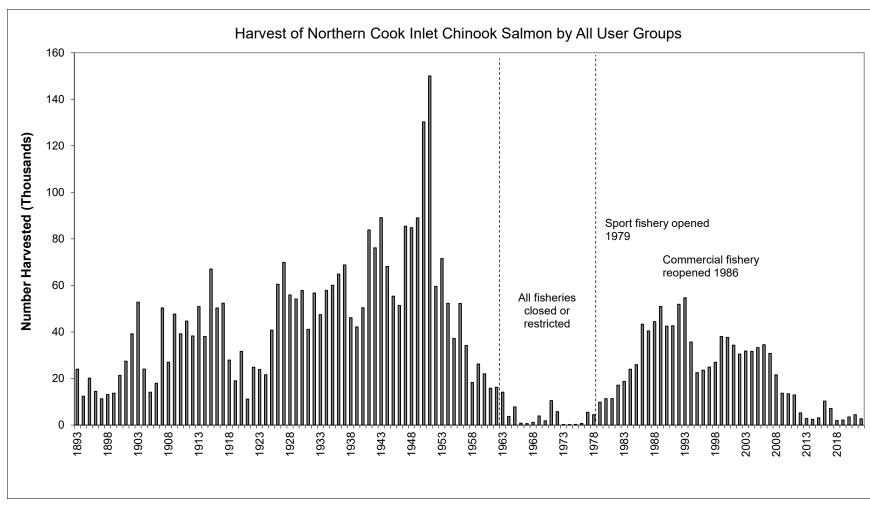


Figure 13.–Estimated harvests of Chinook salmon of Northern Cook Inlet origin by all user groups, 1893–2017.

Source: SWHS for the Division of Sport Fish, data archived with the Division of Commercial Fisheries and the Division of Subsistence.

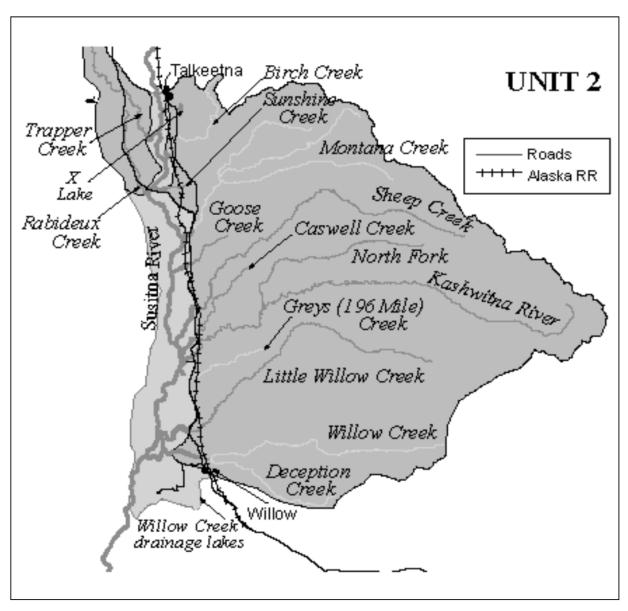


Figure 14.—Susitna River drainage from its confluence with the Deshka River upstream to its confluence with the Talkeetna River.

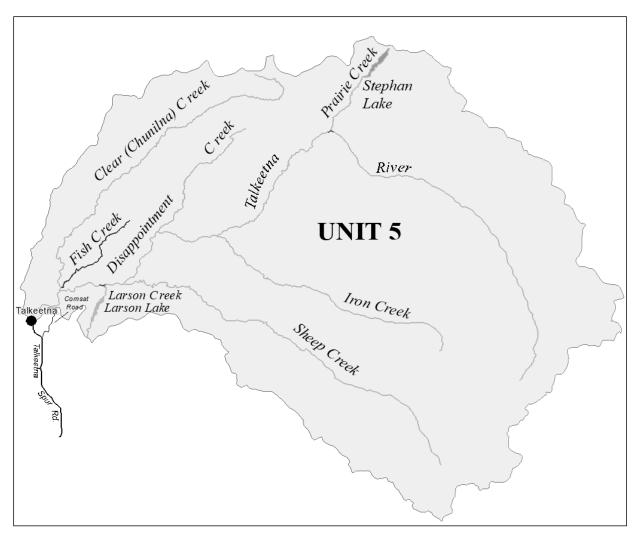


Figure 15.-Flowing waters, lakes, and ponds of the Talkeetna River drainage.

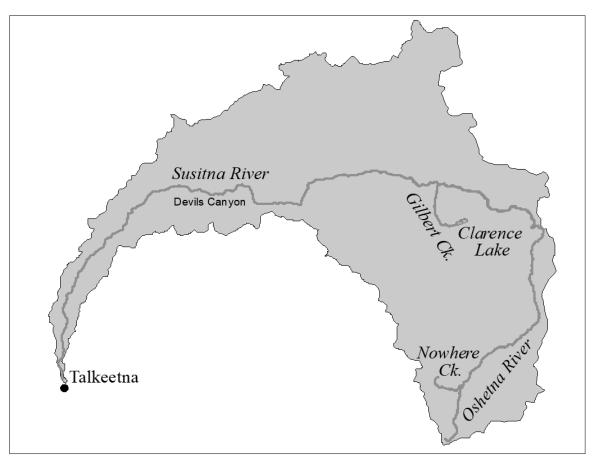


Figure 16.-Upper Susitna River area (Talkeetna to Devils Canyon) including the Oshetna River.

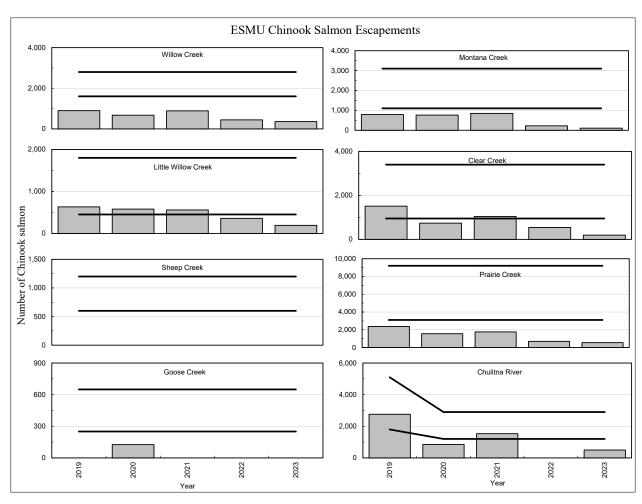


Figure 17.-Chinook salmon escapements at Eastside Susitna River tributaries and Chulitna River, 2019–2023.

Note: Solid lines indicate sustainable escapement goal range.

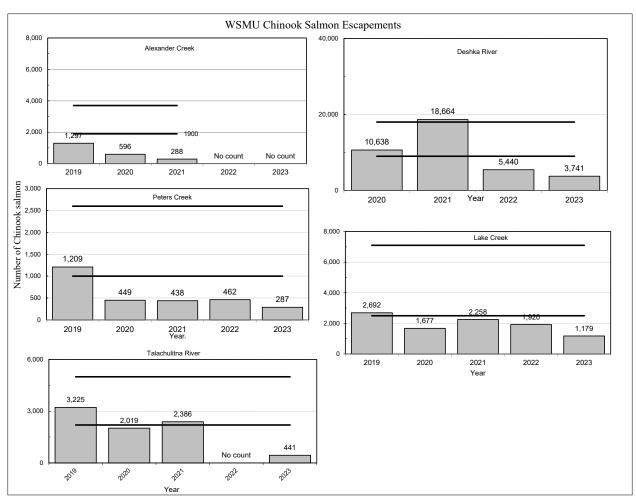


Figure 18.-Chinook salmon escapements at Eastside Susitna River tributaries and Chulitna River, 2019–2023.

Note: Solid lines indicate sustainable escapement goal range.

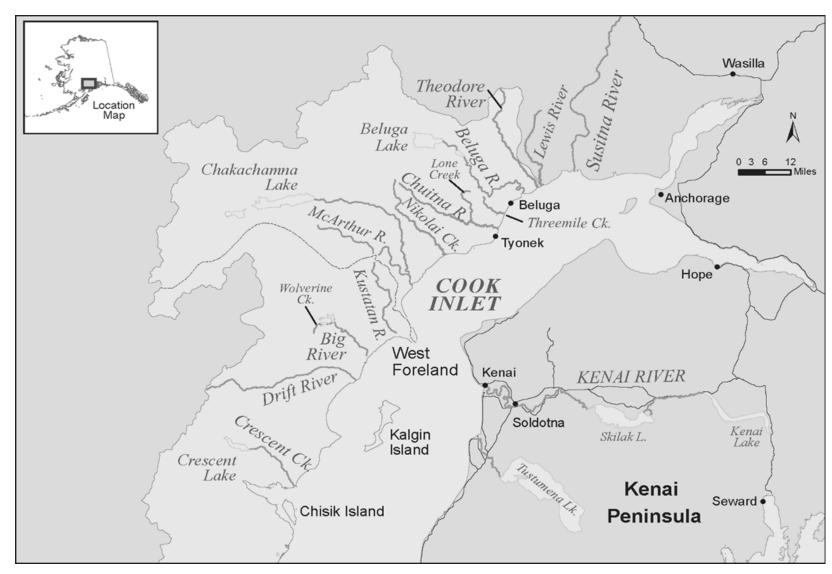


Figure 19.-West Cook Inlet Management Unit (WCIMU).

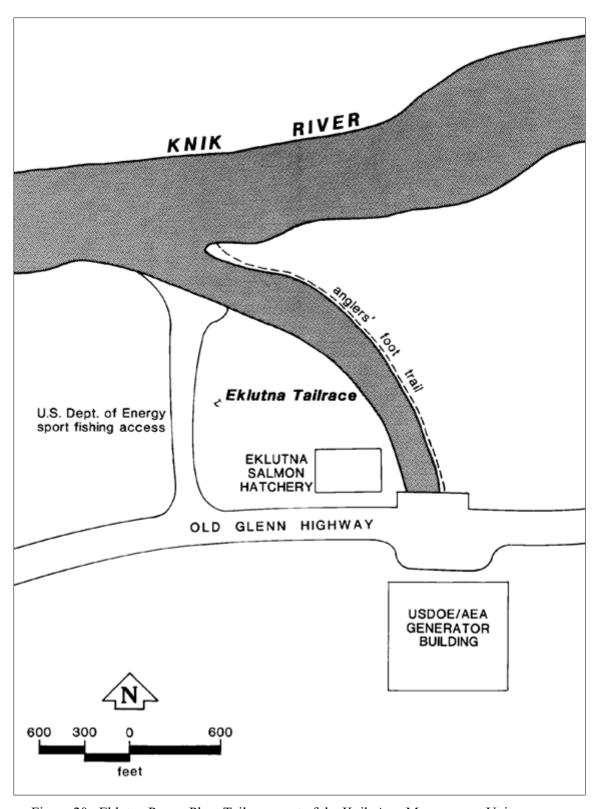


Figure 20.-Eklutna Power Plant Tailrace, part of the Knik Arm Management Unit.

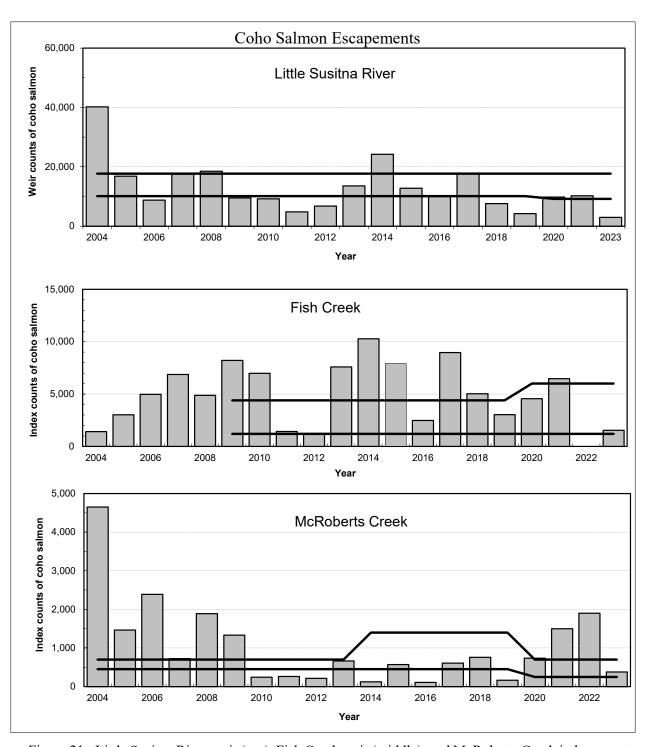


Figure 21.—Little Susitna River weir (top), Fish Creek weir (middle), and McRoberts Creek index counts (bottom) of coho salmon, 2004–2023.

Source: ADF&G foot and weir surveys.

*Note*: For Little Susitna River, there were incomplete counts in 2005, 2006, 2012, 2013, 2018, 2019, 2021–2023 due to flooding and weir submersion; the weir was pulled early in 2015. For Fish Creek, the weir was operated primarily for sockeye salmon; complete coho salmon counts were obtained in 2004–2008, 2011, 2013, 2016, 2020–2022. Solid lines indicate sustainable escapement goal range.

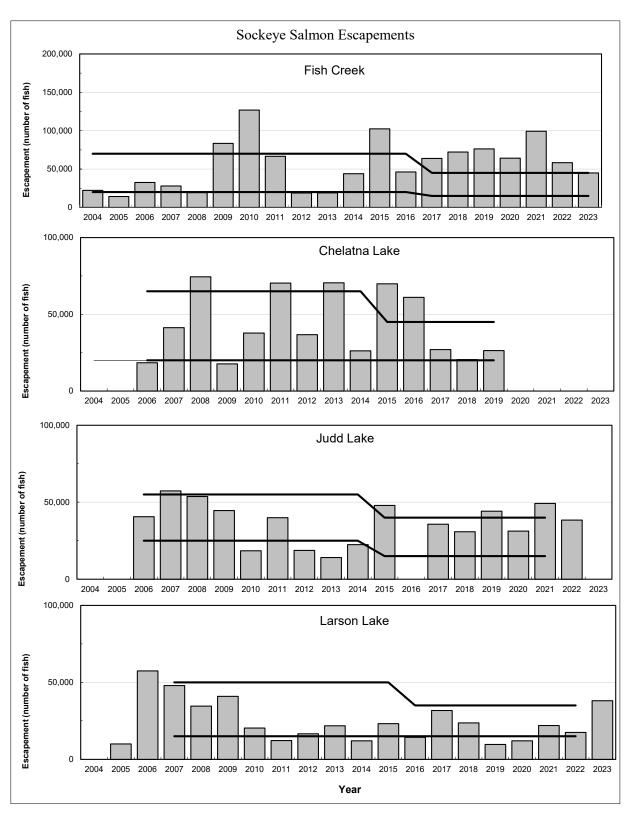


Figure 22.–Estimated sockeye salmon escapements from major fisheries in Northern Cook Inlet Management Area, 2004–2023.

Note: Dashed lines indicate an old escapement goal or range; solid lines indicate sustainable escapement goal range.

APPENDIX A: FISH AND	GAME ADVISORY C	OMMITTEE

Appendix A1.—Northern Cook Inlet Management Area Fish and Game Advisory Committee members, 2022–2023.

Advisory committee	Last	First	
Susitna Valley			
	Fitzgerald	Billy	
	Gustafson	Gus	
	Knowles	Bruce	
	Mahay	Israel	
	Meals	Robert	
	Runyan	Steve	
	Schacle	Ted	
	Schafer	Steven	
	Wood	Mike	
Matanuska Valley			
	Alderman	Chris	
	Bartelli	Stephen	
	Buirge	Mike	
	Couch	Andy	
	DeWitt	Neil	
	Grove	Mel	
	Lewis	Danny	
	Lipse	Chad	
	Manelick	Austin	
	Mansavage	Herb	
	Marshall	Bob	
	Montgomery	Dan	
	Nininger	Terry	
	Nordstrom	Hans	
	Stevens	Tim	
	Young	David	
	Yuknis	Birch	
Mt. Yenlo			
	Brion	Tom	
	Childs	Steve	
	Childs	Bonnie	
	Gaszak	Alfred	
	Ivey	James	
	Johnson	Eric	
	McHoes	David	
	Payton	Tom	
	Phillips	Roger	
	Stanley	Barry	
	Torkelson	Mark	

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Advisory committee	Last	First	
Tyonek			
	Al Goozmer	Pedro	
	Chuitt, Jr.	Lecon	
	Chickalusion	Norma	
	Chickalusion	Gwen	
	Chickalusion	Theodore	
	Kroto	Cassandra	
	Pfoff	Alex	
	Standifer	Randy	
	Standifer, Jr.	Donald	
	Trenton	Justin	
	Verduce	Janelle	

## APPENDIX B: REGULATORY HISTORIES OF SELECTED FISHERIES

NCIMA waters were open to fishing for Chinook salmon from statehood through 1963. During 1964 through 1966 freshwater fishing for Chinook salmon was closed. During 1967 through 1970 Alexander Creek, Clear Creek, Deshka River and Lake Creek were open in their entirety. This fishery operated over a 15-day season during the middle of June on a harvest quota of 250 fish over 20 inches in length. The season could be closed early if the quota was achieved. A 1 fish per day, 2 per season bag limit for fish over 20 inches in length was in place, and a punch card was required to participate in the fishery. In 1971, the harvest quota was eliminated. During 1971 and 1972, in addition to the 15-day season in Alexander Creek, Deshka River, and Lake Creek, a more restrictive fishery was allowed (few days) in Clear Creek and portions of the Little Susitna River, Ship Creek (Anchorage), and Willow Creek; however, a punch card was still required. In 1973, the area Chinook salmon fishery was closed to the harvest of Chinook salmon 20 inches or larger in length and remained so through 1978.

Select Susitna River streams were reopened to Chinook salmon fishing in 1979 after being closed for several years because of low stock abundance. Cautious incremental expansion has characterized the area's Chinook salmon fisheries since they reopened. From 1979 through 1982, fishing for Chinook salmon was permitted at Alexander Creek, Lake Creek and at the Deshka River from the fourth Saturday in May through July 6. These streams drain into the Susitna River from the west. Clear Creek, a tributary of the Talkeetna River, also had a similar Chinook salmon season. In addition, 3 eastside tributaries of the Susitna River (Willow, Caswell, and Montana Creeks) were only open on Saturdays and Sundays for 4 consecutive weekends commencing on the second Saturday in June. Harvest quotas, ranging from 200 to 7,000 Chinook salmon, governed these fisheries from 1979 through 1982. The Chuitna River, a coastal stream near Beluga, and the entire Yentna and Talkeetna river drainages were opened to Chinook salmon fishing in 1983. The opening date for Chinook salmon fisheries that provided continuous daily fishing was also changed to January 1.

In 1984, the remaining coastal streams near Beluga and all waters draining into the westside of the Susitna River downstream from the Deshka River were opened to Chinook salmon fishing. In 1986, portions of 5 road-accessible streams on the east side of the Susitna River opened to weekend-only fishing. These streams were Little Willow, Goose, Sunshine, Sheep and Birch Creeks.

Expanded Chinook salmon fishing opportunity continued in 1987 when Monday fishing was added to all former weekend-only fisheries that drain into the Susitna River from the east. Saturday through Monday fishing was also allowed on the Susitna River and all flowing waters within one-quarter mile of the Susitna River (excluding the Kashwitna River) between the Deshka and Talkeetna rivers. These "corridor" fisheries were open for 4 continuous "weekends" similar to the previously mentioned Saturday through Monday fisheries. Fishing for Chinook salmon was permitted for the first time on the Susitna River drainage from the confluence of the Susitna and Talkeetna rivers upstream to Devils Canyon but excluding the Chulitna River drainage. Unbaited, single-hook, artificial lures were mandatory in this area. The season extended from January 1 through July 13. The season for all Susitna River and coastal fisheries that formerly closed on July 6 was extended to July 13 in 1987.

-continued-

In 1989, Chinook salmon fishing was allowed within a one-quarter mile radius of the mouth of the Kashwitna River. That same year, fishing was permitted daily at Willow Creek between January 1 and the third Monday in June and on Saturday through Monday for 2 consecutive weeks starting the fourth Saturday in June.

In 1979, bag and possession limits were 1 Chinook salmon 20 inches or over in length. The following year, bag and possession limits changed to 2 Chinook salmon 20 inches or over in length, but only 1 Chinook salmon could be over 28 inches in length. In 1981, the bag limit was reduced to 1 Chinook salmon 20 inches or more in length and in possession. This limit remained in effect through 1985. A limit of 5 fish (20 inches or more in length) per year governed all Cook Inlet Chinook salmon fisheries from 1979 through 1985. This limit applied collectively to Northern Cook Inlet fresh water, Cook Inlet salt water, and the Kenai Peninsula.

In 1986, bag and possession limits for the western drainages of the Susitna River were changed to 2 Chinook salmon, 16 inches or more in length daily and 4 in possession; these limits remained through 1992. Only 1 fish daily and 2 in possession could be over 28 inches. Similar limits also applied to the West Cook Inlet coastal fisheries. Bag and possession limits for eastern drainages of the Susitna River in 1986 were 1 Chinook salmon, 16 inches or more in length, and 2 in possession. The seasonal limit was 5 Chinook salmon 16 inches or more in length. From 1979 through 1988, anglers were required to list their Chinook salmon harvest on nontransferable harvest records. The date and location of harvested Chinook salmon were recorded. From 1980 through 1982, a \$5 permit stamp was mandatory when fishing for Chinook salmon. The harvest record and yearly limit was eliminated for all NCI Chinook salmon fisheries in 1989.

During the November 1992 BOF meeting, several regulations were changed in the Susitna–West Cook Inlet Management Area effective for the 1993 season. A seasonal limit of 5 Chinook salmon was established for all waters of Cook Inlet. Individuals or companies engaged in freshwater sport fish guiding were prohibited from participating or engaging in sport fishing while clients were present or within his or her control or responsibility during the Chinook salmon season except when guiding a client subject to the Americans with Disabilities Act.

In effect for the 1993 season in the West Cook Inlet area, the Chinook salmon fishing season was reduced in length to end on June 30. The bag and possession limits were reduced in areas open to the retention of Chinook salmon 16 inches or more in length to 1 daily and 1 in possession.

Additionally, only unbaited, artificial lures could be used, Chinook salmon 16 inches or more in length could not be possessed or retained, and all Chinook salmon caught had to be released immediately in the following areas of West Cook Inlet: (1) the Chuitna River drainage upstream of an ADF&G marker located adjacent to the old cable crossing, (2) the Theodore River drainage upstream of an ADF&G marker located approximately 1 mile upstream of the Beluga—Anchorage high voltage power lines, and (3) the Lewis River drainage upstream of an ADF&G marker located approximately 1 river mile upstream of the main Beluga haul road bridge.

Action during the November 1992 BOF meeting also reduced the Chinook salmon bag and possession limits in the Susitna River drainage including all flowing waters draining into the west side of the Susitna River downstream of and including the Deshka River. The bag and possession limits for Chinook salmon over 16 inches were reduced to 1 daily and 2 in possession.

In addition to BOF action, legislative action during June of 1992 established provisions beginning in 1993 that prohibited resident or nonresident anglers from fishing in Alaska without a king (Chinook) salmon stamp.

Prior to the 1994 season, in anticipation of a poor Deshka River Chinook salmon run, an emergency order (EO) was issued reducing the Chinook salmon possession limit to 1 fish and eliminating the use of bait in the Deshka River from May 1 through July 14. As the 1994 Chinook season progressed, it became apparent weak Chinook salmon runs were occurring in the entire Susitna River drainage and particularly in the Deshka River. In response to this, an EO was issued June 17–July 13, 1994, closing all waters of the Deshka River to sport fishing for Chinook salmon and prohibiting the use of bait in all waters of the Susitna River drainage downstream of the Deshka River that flow into the Susitna River from the east and into the Alexander Creek drainage, all waters of the Yentna River drainage, all waters of the Talkeetna River drainage, and all waters of the Chulitna River drainage.

During its October work session, the BOF chose to delegate to ADF&G the authority to change regulations for the 1995 fishing season. These changes were as follows:

- 1) The Deshka River and Prairie Creek were closed to fishing for Chinook salmon.
- 2) Alexander Creek above the confluence of Trail Creek was closed to fishing for Chinook salmon.
- 3) The bag and possession limits in the Susitna River and Little Susitna River drainages were reduced to 1 Chinook salmon over 16 inches in length.
- 4) The use of bait throughout the NCIMA was prohibited (excluding the Anchorage Management Unit).
- 5) Fishing in the NCIMA was allowed only between the hours of 6:00 AM and 11:00 PM from May 15 through July 13. This time restriction will not apply to that portion of the Susitna River drainage currently opened to weekend-only fishing (e.g., between, but not including, the Deshka River and the Talkeetna River), and the Anchorage Management Unit.
- 6) The first opening of the Northern District commercial Chinook salmon fishery would occur by emergency order. Additional opening of this fishery would be dependent upon inseason indications of run strength.

The only new regulation for the 1996 season was the closure of the Lewis River to fishing for Chinook salmon, including catch-and-release fishing.

The BOF convened in Anchorage, Alaska during November 11–17, 1996. A brief summary of regulatory changes adopted by the BOF affecting the Susitna–West Cook Inlet Area Chinook salmon fisheries follows (note that "king" replaces "Chinook" in the regulatory language and "department" refers to Alaska Department of Fish and Game).

# 5 AAC 21.366. Northern District King Salmon Management Plan

To fulfill changes to the Upper Cook Inlet King Salmon Management Plan, as adopted by the Board of Fisheries, the Department of Fish and Game shall manage the Northern District commercial king salmon fishery as follows:

- (3) The harvest shall not exceed 12,500 king salmon.
- (8) The season closes on June 24, unless closed earlier by emergency order.
- (9) The number of regular periods shall be determined by the department based on preseason expectations of king salmon run strength.
- (10) The area from 1 mile south of the Theodore River to the Susitna River is closed to fishing; provisions of this paragraph do not apply after December 31, 1998.
- (11) If at least 90% of the biological escapement goal for the Theodore River (BEG = 750) or Chuitna River (BEG = 1,400) is not met during the 1997 fishing season, the area from 1 mile south of the Chuitna River to the Susitna River will be closed to commercial fishing during the 1998 fishing season; the provisions of this paragraph do not apply after December 31, 1998.
- (12) In addition to (11) above, if at least 90% of the biological escapement goal for the Chuitna River has not been met during the 1997 fishing season, the area from 1 mile south of the Chuitna River to the Susitna River will be closed to sport fishing for king salmon during the 1998 fishing season; the provisions of this paragraph do not apply after December 31, 1998.

# 5 AAC 61.010. Fishing Seasons

The Alexander Creek drainage is open to the retention (harvest) of king salmon from January 1 through June 30 downstream from an ADF&G regulatory marker at Granite Creek.

# 5 AAC 61.020. Bag Limits, Possession Limits, and Size Limits

In all waters of Alexander Creek drainage between an ADF&G regulatory marker located at Granite Creek, upstream to an ADF&G regulatory marker located 400 yards upstream of Trail Creek, king salmon 16 inches or more in length may not be possessed or retained. All king salmon caught must be released immediately.

#### 5 AAC 61.035. Methods and Means

Only unbaited, single-hook, artificial lures may be used from January 1 through June 30 in all waters of the Alexander Creek drainage between an ADF&G regulatory marker located at Granite Creek to an ADF&G regulatory marker located 400 yards upstream of Trail Creek.

# 5 AAC 61.050. Waters Closed to Sport Fishing

- 1) Peters Creek (Susitna River drainage) is closed to sport fishing for king salmon upstream from an ADF&G regulatory marker, located approximately 1 mile upstream from its confluence with the Kahiltna River.
- 2) The Theodore River is closed to sport fishing for king salmon. The provisions of this paragraph do not apply after December 31, 1998.

## 5 AAC 61.020. Bag Limits, Possession Limits, and Size Limits

- 1) In all waters of the Susitna River drainage between the confluence of the Deshka River and the confluence of the Talkeetna River: after taking a king salmon 16 inches or more in length, a person may not fish for any species of fish in any water open to king salmon fishing during that same day.
- 2) In the Little Susitna River from its mouth to the Parks Highway bridge at Houston: after taking a king salmon 16 inches or more in length, a person may not fish for any species of fish in any water open to king salmon fishing during that same day.
- 3) In all waters of the Susitna–West Cook Inlet Management Area, excluding the Susitna River between its confluence with the Deshka River and its confluence with the Talkeetna River: after taking a king salmon 16 inches or more in length, a person may not fish for king salmon during that same day.

# 5 AAC 61.020. Bag Limits, Possession Limits, and Size Limits

The bag and possession limits of king salmon 16 inches or more in length taken from the Little Susitna River drainage are 1 fish per day and in possession.

During 1997, the Deshka River was open to Chinook salmon fishing on June 21 through July 13. Fishing was limited to the lower 2 miles of river and all Chinook salmon regulations applying to the Susitna River from its mouth to its confluence with the Deshka River were in effect for the Deshka River.

In 1998, the Deshka River was open to Chinook salmon fishing from its confluence with the Susitna River upstream 5 miles to an ADF&G marker. The seasonal bag limit was 2 Chinook salmon over 16 inches from the Deshka River. In addition, all Chinook salmon regulations applying to the Susitna River from its mouth to its confluence with the Deshka River were in effect for the Deshka River. Inseason EOs opened Willow Creek June 20–22 to Chinook salmon fishing to correct an oversight in the regulations, and 1 Friday was added to Chinook salmon fishing in the Susitna River between the Deshka River and the Talkeetna River (excluding both).

The BOF made the following changes for the 1999 season. The Deshka River was open to Chinook salmon fishing from its mouth upstream to Chijuk Creek, a distance of approximately 17 river miles from January 1 to July 13. Other area regulations applied, including bag and possession limits of 1 fish per day, a seasonal limit of 5 fish, and upon harvesting a Chinook salmon, an angler must quit fishing for Chinook salmon the remainder of the day. Additionally, fishing was allowed only between the hours of 6:00 AM to 11:00 PM, no bait was allowed, and guides were not allowed to fish while guiding clients.

During the 1997 and 1998 seasons, the area open for retention of Chinook salmon on Alexander Creek was extended from its mouth upstream to Trail Creek, providing anglers with an additional 11 miles of stream in which they could harvest Chinook salmon on Alexander Creek.

The Theodore River was opened to catch-and-release fishing for Chinook salmon with only single hook artificial lures from January 1 through June 30. Other West Cook Inlet Area regulations applied as follows: fishing was allowed only between the hours of 6:00 AM to 11:00 PM, bait was prohibited, and guides were not allowed to fish while guiding.

There were increased fishing opportunities for the road-accessible Parks Highway streams (Eastside Susitna River tributaries) during the early part of June. The Parks Highway streams were open to Chinook salmon fishing from January 1 through the third Monday in June and for the next 2 consecutive 3-day weekends. This regulation was consistent with the fishing season on Willow Creek.

On the Little Susitna River, anglers were allowed to use treble hooks year-round downstream of the Parks Highway Bridge. Existing bait restrictions were modified to allow the use of bait during the month of September.

The area open to Chinook salmon fishing on the Kashwitna River was extended from its mouth upstream to the Parks Highway Bridge, a distance of 2 miles. The new season regulations for Parks Highway streams (above) were applied to the Kashwitna River.

In all waters of the Westside Susitna River and West Cook Inlet Management Areas (excluding waters between the mouths of the Deshka and Talkeetna rivers), anglers were allowed to continue to fish for Chinook salmon (catch-and-release) once they harvested their limit (excluding Alexander Creek, Lake Creek, Deshka River, Fish Lake Creek and Clear Creek, which all required that fishing for Chinook salmon cease for the day once the limit was harvested).

During January 2001, the BOF imposed a statewide definition of "jack" king (Chinook) salmon as any Chinook salmon 20 inches or less in length. In all fresh waters open to Chinook salmon fishing, the BOF imposed bag and possession limits for "jacks" of 10 fish in addition to any limits for Chinook salmon over 20 inches in length, and ruled that "jack" limits do not count against annual or seasonal limits. This new definition increased the length requirement for Chinook salmon that must be recorded for the 5-fish seasonal limit from 16 inches to 20 inches.

A BOF meeting was held in February of 2002, resulting in the following changes in Chinook salmon regulations:

- 1) Catch-and-release fishing was allowed for Chinook salmon in the east fork of the Chulitna River January 1 through July 13. Only 1 single-hook, unbaited artificial lure could be used January 1 through July 13.
- 2) The possession limit was increased to 2 Chinook salmon for Westside Susitna River tributaries (excluding Alexander Creek).
- 3) In the *Northern District King Salmon Management Plan*, the following was established: the commercial setnet fishery opens on the first Monday on or after May 25 and closes June 24. The number of commercial periods depends upon expected northern Cook Inlet Chinook salmon run strengths, and there shall be no more than 3 commercial openings targeting Chinook salmon. The area from an ADF&G marker located 1 mile south of the Theodore River to the Susitna River is open to fishing in the second regular period only. If the Theodore, Lewis, or Ivan rivers are closed to sport fishing, the area from an ADF&G regulatory marker located 1 mile south of the Theodore River to the Susitna River is closed to commercial Chinook salmon fishery. If the Deshka River is closed to sport fishing, the commercial Chinook salmon fishery throughout the Northern District is closed for the remainder of the directed Chinook salmon fishery. If the Chuitna River is closed to sport fishing, the area from an ADF&G marker located 1 mile south of the Chuitna River to the Susitna River is closed to commercial Chinook salmon fishing for the remainder of the directed Chinook salmon fishery.
- 4) Catch-and-release fishing was allowed in the entire Theodore and Lewis rivers with no bait and single hook only.

These regulations were not signed into law prior to the start of the 2002 season. Because of this delay, the following EOs were issued to allow the new regulations to be in effect during the beginning of the fishing season:

- 1) The possession limit was increased to 2 Chinook salmon in all Westside Susitna River tributaries except Alexander Creek.
- 2) The entire Theodore and Lewis rivers were opened to catch-and-release for Chinook salmon through June 30 with single hook and no bait.
- 3) The use of bait was allowed in the first 17 miles of the Deshka River and within a one-quarter mile radius of the mouth of the Deshka River with the Susitna River, June 8 through July 13, 2002.

A BOF meeting was held January 2005 and included the following changes to the Chinook salmon sport fish regulations:

- 1) Anglers were allowed to use bait earlier in the Deshka River commencing May 15.
- 2) The Parks Highway streams were opened to Chinook salmon fishing for an additional 3-day weekend. For 2005, the Parks Highway streams were open from January 1 to June 20 and on June 25–27, July 2–4 and July 9–11.
- 3) The area open to Chinook salmon fishing on the Kashwitna River was increased by approximately 1 mile from the Parks Highway Bridge to the Alaska Railroad Bridge.
- 4) Anglers could no longer fish for Chinook salmon 20 inches or less in waters closed to Chinook salmon fishing.
- 5) Eklutna Tailrace and all waters within a one-half mile radius of its confluence with the Knik River were opened to fishing for Chinook salmon from January 1 through December 31. Once a bag limit of Chinook salmon 20 inches or longer was retained, an angler could not fish in any water open to Chinook salmon fishing on that same day.

Commercial fish regulatory changes included the following:

- 1) Alterations to the *Northern District King Salmon Management Plan* limited fishing periods to a maximum of 3, increased fishing time per period from 6 hours to 12 hours, and removed the gear restriction of 2 nets from August 1 to August 10.
- 2) The *Big River Sockeye Salmon Management Plan* was amended to allow fishing in a portion of the Kalgin Island Subdistrict along the western shore from Light Point (lat 60°29.00'N, long 151°50.50'W) to the Kalgin Island Light on the southern end of the island (lat 60°20.80'N, long 152°05.09'W). This fishery was closed if 1,000 Chinook salmon were harvested.

In February 2008, a BOF meeting resulted in the following Chinook salmon regulation changes:

- 1) Alexander Creek was closed to king salmon fishing.
- 2) The area open to Chinook salmon fishing at the Eklutna Tailrace was expanded. In addition to the tailrace and waters within a one-half mile radius of the mouth, anglers were allowed to fish downstream to an ADF&G marker located approximately 2 miles downstream of the tailrace mouth.

In 2009, the BOF enacted an emergency regulation on May 20 to reduce the fishing time in the Northern District setnet fishery from 12 to 6 hours by allowing commercial salmon fishing to occur only between 7:00 AM and 1:00 PM. On June 11, the Northern District was closed to the harvest of Chinook salmon for the remainder of the fishing periods scheduled for 2009 due to the closure of the Deshka River Chinook salmon sport fishery.

A BOF meeting held in February 2011 resulted in the following Chinook salmon regulation changes:

- 1) The Chuitna, Theodore, Lewis, and Beluga rivers were closed to sport fishing for Chinook salmon.
- 2) Goose Creek within Unit 2 of the Susitna River was closed to sport fishing for Chinook salmon.
- 3) For Parks Highway streams within Unit 2 of the Susitna River that are open to Chinook salmon fishing
  - a.) the fishing season was shortened (fishing was open until the third Monday in June and for the following 2 consecutive 3-day [Saturday–Monday] weekends; for 2011, the season was from January 1 to June 20, June 25 to June 27, and July 2 to July 4),
  - b.) from May 15 to July 13, fishing for all species was allowed only from 6:00 AM to 11:00 PM, and
  - c.) these new regulations applied to Willow, Little Willow, Grays, Caswell, Sheep, Montana, Sunshine, and Rabideux Creeks, and the Kashwitna River.
- 4) Fishing from a boat for any species was prohibited on a portion of the Susitna River at the farthest downstream mouth of Willow Creek, also known as the "first mouth" of Willow Creek, from May 1 to July 13. Markers located on the upstream bank and downstream approximately 300 yards delineated the area closed to fishing from a boat.
- 5) On the Talachulitna River, anglers retaining Chinook salmon 20 inches or longer must stop fishing for Chinook salmon within a 1-mile radius of the mouth of the Talachulitna River for the remainder of the day.
- 6) Fishing for any species was closed within a one-half mile radius of the mouth of Alexander Creek from May 1 to July 13.
- 7) A "stock of concern" status was established for Chinook salmon stocks in the Chuitna, Theodore, and Lewis rives within the WCIMU; a "stock of yield concern" status was established for Goose and Willow Creeks (Parks Highway streams) of the Susitna River; and a "stock of management concern" status was established for Alexander Creek of the lower Susitna River.
- 8) The area closed to commercial fishing was extended from 1 mile to about 4.8 miles south of the Chuitna River.

No new regulations were issued in 2012–2013.

A BOF meeting in 2014 resulted in the following Chinook salmon regulation change:

- 1) For the Deshka River, the starting date when bait is allowed by regulation was changed from May 15 to June 1.
- 2) A youth-only fishery for ages 15 and younger was designated at the Eklutna Tailrace for the third Saturday in June from 6:00 AM to 6:00 PM from the confluence with the Knik River upstream to the pedestrian bridge.

3) Anglers were reminded that a regulation passed by the BOF in 2014 impacting boat motor use on the Little Susitna River went into effect this season. On the Little Susitna River, a person may not sport fish from a boat that is powered by use of a motor, unless the motor is a 4-stroke motor or direct fuel injection 2-stroke motor. Anglers may use a boat powered by a non-direct fuel injected 2-stroke motor to access areas to sport fish from the bank but may not sport fish from the boat.

No new regulations were issued in 2015–2016.

In 2017 a BOF meeting held in February resulted in the following Chinook salmon regulation change:

A 1,500 foot zone downstream of the Little Susitna River weir was closed to all fishing when the weir is in place. This same area has been commonly closed by the department by EO since 2012.

No new regulations were issued in 2018–2020.

Appendix B2.-Deshka River Chinook salmon regulatory changes, 1977-2023.

V	Fishery	Area and time	Method and gear	Bag and possession	Seasonal	Otherware
Year 1977	dates closed to	restrictions	restrictions	limits ≤20 in only	NCI limit	Other requirements
	adults			•		
1978	closed to adults			≤20 in only		
1979	4th Sat. in May–6 Jul	mouth to Laub's Homestead marker		1/day >20 in and 1 in possession	5 >20 in	punch card required
1980	4th Sat. in May–6 Jul	mouth to forks		2/day >20 in, only 1 >28 in and 2 in possession	5 >20 in	punch card required
1981	4th Sat. in May–6 Jul	mouth to forks		1/day >20 in and 2 in possession	5 >20 in	harvest record sticker
1982	4th Sat. in May–6 Jul	mouth to forks		1/day >20 in and 2 in possession	5 >20 in	permit stamp with record on back of license
1983	1 Jan–6 Jul	mouth to forks		1/day >20 in and 2 in possession	5 >20 in	harvest record on back of license
1984	1 Jan–6 Jul	mouth to forks		1/day >20 in and 2 in possession	5 >20 in	harvest record on back of license
1985	1 Jan–6 Jul	mouth to forks		1/day >20 in and 2 in possession	5 >20 in	harvest record on back of license
1986	1 Jan–6 Jul	mouth to forks		2/day >16 in and 4 in possession, only 1/day >28 in and 2 in possession	5 >16 in	harvest record on back of license
1987	1 Jan-13 Jul	mouth to forks		2/day >16 in and 4 in possession, only 1/day >28 in and 2 in possession	5 > 16 in	harvest record on back of license
1988	1 Jan-13 Jul	mouth to forks		2/day >16 in and 4 in possession, only 1/day >28 in and 2 in possession	5 >16 in	harvest record back of license
1989	1 Jan-13 Jul	mouth to forks		2/day >16 in and 4 in possession, only 1/day >28 in and 2 in possession	5 >16 in	
1990	1 Jan-13 Jul	mouth to forks		2/day >16 in and 4 in possession, only 1/day >28 in and 2 in possession	5 > 16 in	
1991	1 Jan–13 Jul	mouth to forks		2/day >16 in and 4 in possession, only 1/day >28 in and 2 in possession	5 > 16 in	

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	Fishery	Area and time	Method and gear	Bag and	Seasonal	
Year	dates	restrictions	restrictions	possession limits	NCI limit	Other requirements
1992	1 Jan-13 Jul	mouth to forks	no bait between Trapper Creek and forks on 22 Jun by EO	1/day >16 in and 1 in possession, release of fish >16 in between Trapper Creek and forks on 22 Jun by EO	5 > 16 in	S mor requirements
1993	1 Jan-13 Jul	mouth to forks	artificial only until 15 May	1/day >16 in and 2 in possession	5 > 16 in	king stamp with harvest record on back of license
1994	closed 17 Jun by EO	mouth to forks	artificial only until 16 May	1/day >16 in and 2 in possession	5 > 16 in	king stamp with harvest record on back of license
1995	closed					
1996	closed					
1997	opened 21 Jun by EO	lower 2 miles of river	artificial only	1/day >16 in and 1 in possession	5 > 16 in	king stamp with harvest record on back of license
1998	1 Jan-13 Jul	lower 5 miles of river	artificial only	1/day >16 in and 1 in possession	5 > 16 in with only 2 from Deshka	king stamp with harvest record on back of license
1999	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	artificial only	1/day >16 in and 1 possession	5 > 16 in	king stamp with harvest record on back of license
2000	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait allowed 8 Jun by EO	1/day >16 in and 1 in possession	5 > 16 in	king stamp with harvest record on back of license
2001	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait allowed 12 Jun by EO	1/day >20 in and 1 in possession	5 > 20 in	king stamp with harvest record on back of license
2002	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM-11 PM	bait allowed 8 Jun by regulation	1/day >20 in and 2 in possession	5 > 20 in	king stamp with harvest record on back of license
2003	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait allowed 8 Jun by regulation	2/day >20 in and 4 in possession on 18 Jun by EO	5 > 20 in	king stamp with harvest record on back of license
2004	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait allowed 28 May by EO	2/day >20 in and 4 in possession on 12 Jun by EO	5 > 20 in	king stamp with harvest record on back of license
2005	1 Jan-13 Jul	mouth to Chijuk Creek: opened 24-hr on 27 May by EO	bait allowed 15 May by regulation	2/day >20 in and 4 in possession on 27 May by EO	5 > 20 in	king stamp with harvest record on back of license

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					Seasonal	
<b>V</b>	Fishery	Area and time	Method and gear	Bag and	NCI	Other
Year 2006	1 Jan–13 Jul	restrictions mouth to Chijuk Creek: opened 24-hr on 26 May by EO	bait allowed 15 May by regulation	possession limits 2/day >20 in and 4 in possession on 26 May by EO	limit 5 > 20 in	king stamp with harvest record on back of license
2007	1 Jan-13 Jul	mouth to Chijuk Creek: opened 24-hr on 25 May by EO	bait allowed 15 May by regulation	2/day >20 in and 4 in possession on 25 May by EO	5 > 20 in	king stamp with harvest record on back of license
2008	1 Jan-13 Jul	mouth to Chijuk Creek: 6 AM– 11 PM, fishery closed 19 Jun by EO	bait not allowed 14 Jun–13 Jul by EO	1/day >20 in and 1 in possession	5 >20 in	king stamp with harvest record on back of license
2009	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM– 11 PM, retention Sat, Sun, Mon only 13 May by EO, fishery closed 11 Jun by EO	bait not allowed after 20 Apr by EO.	1/day >20 in and 1 in possession	5 > 20 in	king stamp with harvest record on back of license
2010	1 Jan-13 Jul	mouth to Chijuk Creek: 6 AM– 11 PM	bait not allowed 12–19 Jun by EO	1/day >20 in and 1 in possession	5 > 20 in	king stamp with harvest record on back of license
2011	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM– 11 PM	bait allowed 15 May by regulation	1/day >20 in and 1 in possession	5 >20 in	king stamp with harvest record on back of license
2012	1 Jan-13 Jul	mouth to Chijuk Creek: 6 AM– 11 PM, closed above weir after 19 Jun by EO, fishery closed 25 Jun by EO	single hook only after 1 May EO, bait not allowed after 19 Jun by EO	1/day >20 in and 1 in possession	2 >20 in by EO	king stamp with harvest record on back of license
2013	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM– 11 PM	single hook only after 1 May by EO, bait not allowed 1 May– 29 Jun by EO	1/day >20 in and 1 in possession	2 > 20 in by EO	king stamp with harvest record on back of license
2014	June 1	mouth to Chijuk Creek	bait allowed 1 June by regulation	1/day >20 in and 1 in possession	2 >20 in by EO	king stamp with harvest record on license

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					Seasonal	
	Fishery	Area and time	Method and gear	Bag and	NCI	Other
Year	dates	restrictions	restrictions	possession limits	limit	requirements
2014	1 May-	mouth to Chijuk	single hook	1/day > 20  in and	2 >20 in	king stamp with
	13 Jul	Creek	only, harvest Fri–Mon only	1 in possession	by EO	harvest record on license
2015	1 May-	mouth to Chijuk	single hook	1/day > 20  in and	2 >20 in	king stamp with
	13 Jul	Creek	only, annual limit 2	1 in possession	by EO	harvest record on license
2015	13 Jun-	mouth to Chijuk	bait allowed by	1/day > 20  in and	2 >20 in	king stamp with
	13 Jul	Creek	ЕО	1 in possession	by EO	harvest record on license
2015	27 Jun-	mouth to Chijuk	annual limit 5	1/day > 20  in and	5 > 20 in	king stamp with
	13 Jul	Creek		1 in possession	by EO	harvest record on license
2016	1 May-	mouth to Chijuk	annual limit 2,	1/day > 20  in and	2 >20 in	king stamp with
	13 Jul	Creek	multiple hooks	1 possession	by EO	harvest record on license
2016	11 Jun-	mouth to Chijuk	annual limit 5	1/day > 20  in and	5 > 20 in	king stamp with
	13 Jul	Creek		1 in possession	by EO	harvest record on license
2017	1 May-	mouth to Chijuk	bait not allowed	1/day > 20  in and	2 >20 in	king stamp with
	13 Jul	Creek	after 23 June by EO	1 in possession	by EO	harvest record on license
2018	1 May-	mouth to Chijuk	catch and release	no possession	2 >20 in	king stamp with
	13 Jul	Creek	only		by EO	harvest record on license
2019	1 May-	mouth to Chijuk	single hook	no possession	0	sport fishing
	13 Jul	Creek	only, fishery closed			license for other species
2020	1 May-	mouth to Chijuk	single hook	no possession	0	king stamp with
_0_0	13 Jul	Creek	only, catch and	ne pessessien	Ů	harvest record
			release only			on license
2020	8 Jul-13	mouth downstream	single hook	1/day > 20  in and	2 >20 in	king stamp with
	Jul	of weir	annual limit 2	1 in possession	by EO	harvest record on license
2021	1 May-	mouth to Chijuk	single hook,	no possession	0	king stamp with
	13 Jul	Creek	catch and release	ne pessessien	Ů	harvest record
			only			on license
2021	18 Jun-	mouth to Chijuk	multiple hooks	1/day >20 in and	5 > 20 in	king stamp with
	13 Jul	Creek	and bait	1 in possession	by EO	harvest record
					_	on license
2022	1 May–	mouth to Chijuk	single hook,	no possession	0	king stamp with
	13 Jul	Creek	catch and release only			harvest record on license
2022	20 Jun-	mouth to Chijuk	single hook,	no possession	0	sport fishing
	13 Jul	Creek	fishery closed	1	*	license for other
			•			species
2023	1 May-	mouth to Chijuk	single hook,	no possession	0	sport fishing
	13 Jul	Creek	fishery closed			license for other
						species

*Note:* Chinook salmon are "king" salmon in the regulatory language.

The *Upper Cook Inlet Subsistence Salmon Management Plan* was repealed by the Alaska Board of Fisheries (BOF) in 1995. BOF took action to allow subsistence fishery as a personal use fishery. The Knik set gillnet fishery was executed as a personal use fishery.

#### 1996

- 1) The *Upper Cook Inlet Personal Use Salmon Fishery Management Plan\_*(5 AAC 77.540) established time, area, methods and means for taking salmon for personal use. This plan first went into effect during the 1996 season. It provided for personal use dip net fisheries in the Kenai and Kasilof rivers and Fish Creek. Additionally, limited personal use gillnet fishing opportunity was provided near the terminus of the Kasilof River. No Knik set gillnet fishery was provided.
- 2) Changes were made to the *Fish Creek Sockeye Management Plan* (5 AAC 21.364) concerning the Fish Creek personal use dip net fishery. The dip net fishery was opened July 10 through July 31 with a bag limit of 25 salmon per head of household plus 10 salmon per each household member. A permit was required.
- 3) The Skwentna River Personal Use Salmon Fishery Management Plan (5 AAC 77.526) established a subsistence fish wheel fishery in the Yentna River downstream of its confluence with the Skwentna River. This fishery was implemented as a personal use fishery during the 1996 and 1997 seasons.
- 4) The Little Susitna River Coho Salmon Management Plan (5 AAC 60.170) was modified to repeal the increase the bag and possession limits of coho salmon in specified areas of the Little Susitna River when the escapement goal was projected to be 7,500 nonhatchery fish upstream of the Parks Highway. The bag and possession limits of salmon other than Chinook salmon in the Little Susitna River were 3 fish per day and in possession.
- 5) At the November 1996 meeting, the BOF modified 5 AAC 61.035 (*Methods and means*). Only unbaited, single-hook, artificial lures could be used in all flowing waters of the Alexander Creek drainage upstream of an ADF&G regulatory marker located 400 yards upstream of the confluence of Trail Creek.

#### 1998

The *Upper Yentna River Subsistence Salmon Fishery* (5 AAC 01.593) established a subsistence fish wheel fishery in the Yentna River downstream of its confluence with the Skwentna River. This fishery was implemented as a personal use fishery during the 1996 and 1997 seasons. State Supreme Court and BOF action changed it to a subsistence fishery beginning in 1998. This change did not affect coho salmon harvest.

- 1) Sport fishing time on Fish, Wasilla, and Cottonwood Creeks was reduced. Fishing hours were restricted from 24-hour fishing days to 12-hour fishing days (6:00 AM to 6:00 PM) in these Saturday and Sunday only fisheries. An angler could no longer fish on these streams for the remainder of the day once that angler had harvested a bag limit of 3 salmon other than Chinook salmon.
- 2) In all waters of West Cook Inlet south of the Susitna River (i.e., the Chuitna, Lewis, Theodore, and McArthur rivers), once an angler harvested a bag limit of 3 coho salmon, that angler could no longer fish these streams for the remainder of the day. These same streams were closed to coho salmon fishing from October 1 to December 31.
- 3) For the Little Susitna River, existing bait restrictions were modified to allow the use of bait during the month of September.
- 4) The Little Susitna River Coho Salmon Management Plan (5 AAC 60.170) was modified. The escapement goal of 7,500 coho salmon was changed to an escapement range of 9,600–19,200 nonhatchery fish.

### 2000

- 1) The coho salmon bag and possession limits in the Knik Arm (excluding the stocked coho fishery in the Eklutna Tailrace) and the Susitna River were reduced to 2. The West Cook Inlet bag and possession limits north of the West Foreland were reduced to 2 daily and 4 in possession. South of the West Foreland they remained at 3 daily and 6 in possession.
- 2) Wasilla Creek, Jim Lake, Upper Jim Creek, and McRoberts Creek were closed to coho salmon fishing.
- 3) After an angler harvested a limit of coho salmon from Fish or Cottonwood Creeks, that angler could not fish that same day in Fish and Cottonwood Creeks in waters open to salmon fishing.

#### 2002

- 1) In the Larson Creek drainage, sport fishing for all salmon was closed year-round in streams upstream of a marker located one-quarter mile upstream from the mouth of Larson Creek.
- 2) In the Nancy Lake Creek drainage, all salmon fishing, including catch-and-release, was closed upstream of a marker located one-quarter mile upstream from the mouth of Nancy Lake Creek.
- 3) The Clearwater and Roscoe creek drainages were closed year-round to all fishing upstream from markers located one-half mile upstream of each of their confluences with the Chinitna River.

- 4) The Fish Creek personal use fishery was opened by EO when the escapement goal was projected to be met.
- 5) Wasilla Creek was opened for salmon fishing (excluding Chinook salmon) from its mouth to the Alaska Railroad Bridge Saturday and Sunday only from 6:00 AM to 6:00 PM only.
- 6) The use of bait on Little Susitna River was eliminated July 14, upstream of the Little Susitna Public Use Facility.

### 2005

- 1) An angler was no longer permitted to fish in waters open to salmon fishing the same day that angler took a limit of salmon 16 inches or greater from Wasilla Creek.
- 2) Excluding Alexander Creek, the bag and possession limits for coho salmon on Westside Susitna streams was increased from 2 per day, 4 in possession to 3 per day, 6 in possession.
- 3) Anglers were no longer permitted to fish for "other salmon" (coho, pink, or chum salmon) 16 inches or less in waters closed to fishing for other salmon.

The BOF adopted the following commercial fishery regulations:

# Central District Drift Gillnet Fishery Management Plan (5 AAC 21.353)

- 1) The drift fishery opens the third Monday in June or June 19, whichever is later.
- 2) From July 9 through July 15,
  - a) drift gillnet fishing is restricted for 2 regular fishing periods to the Kenai and Kasilof Sections and Drift Area One described below, and
  - b) in runs of over 2 million sockeye salmon to the Kenai River, there may be 1 additional 12-hour period in the Kenai and Kasilof Sections of the Upper Subdistrict and in Drift Area One.
- 3) From July 16 through July 31,
  - a) in runs of less than 2 million sockeye salmon to the Kenai River, there will be 2 regular 12-hour fishing periods restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Area one;
  - b) in runs of between 2 and 4 million sockeye salmon to the Kenai River, there will be 2 regular 12-hour fishing periods restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and in Drift Areas One and Two; and
  - c) in runs of over 4 million sockeye salmon to the Kenai River, there are no mandatory restrictions.

- 4) From August 11 until closed by emergency order,
  - a) Drift Areas Three and Four are open for regular periods, and
  - b) Chinitna Bay may be opened by emergency order.

New drift fishing areas were as follows:

- 1) <u>Drift Area One</u> includes those waters of the Central District south of Kalgin Island at lat 60°20.43′N.
- 2) <u>Drift Area Two</u> includes those waters of the Central District enclosed by a line from lat 60°20.43′N, long 151°54.83′W to a point at lat 60°41.08′N, long 151°39.00′W to a point at lat 60°41.08′N, long 151°24.00′W to a point at lat 60°27.10′N, long 151°25.70′W to a point at lat 60°20.43′N, long 151°28.55′W.
- 3) <u>Drift Area Three</u> includes those waters of the Central District within 1 mile of mean lower low water (zero tide) south of a point on the West Foreland at lat 60°42.70′N, long 151°42.30′W.
- 4) <u>Drift Area Four</u> includes those waters of the Central District enclosed by a line from lat 60°04.70′N, long 152°34.74′W to the Kalgin Buoy at lat 60°04.70′N, long 152°09.90′W to a point at lat 59°46.15′N, long 152°18.62′W to a point on the western shore at lat 59°46.15′N, long 153°00.20′W, not including the waters of the Chinitna Bay Subdistrict.

Other commercial fishery regulatory changes included the following:

- 1) Up to 50 fathoms of the 150 fathoms of allowable drift gillnet gear per boat may be monofilament mesh, and monofilament gear must be registered with ADF&G prior to use.
- 2) Spotter planes were allowed during the fishing period.
- 3) The pink salmon fishery during even years was reauthorized; the mesh size restriction was removed.
- 4) Up to 35 fathoms of set gillnet gear per permit may be monofilament mesh with no more than 1 net per permit having monofilament mesh, and monofilament gear must be registered with ADF&G prior to use.

#### 2011

- 1) In fresh water of Cook Inlet, a coho salmon removed from the water must be retained. No angler was permitted to remove a coho salmon from the water if it was intended for release.
- 2) The bag and possession limits for coho salmon were increased from 2 to 3 in streams of West Cook Inlet north of West Forelands to the Susitna River. Streams within in this area include Chuitna, Theodore, and Lewis rivers, and tributaries of the Beluga River.

- 3) The bag and possession limits for coho salmon were increased from 2 to 3 in all streams within Units 3, 5, and 6 of the Susitna River drainage.
  - a) Talkeetna River streams (Unit 5) include Clear, Larson, and Prairie Creeks.
  - b) Chulitna River streams (Unit 6) include Byers, Honolulu, and Troublesome Creeks, and the East Fork Chulitna River.
  - c) Upper Susitna streams (Unit 3) include Indian and Portage Creeks.
- 4) The Central District Drift Gillnet Fishery Management Plan was modified during the 2011 BOF meeting to include a preamble that the drift gillnet fishery was to managed to minimize the harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The expanded Kenai and Kasilof corridors were also created in 2011 and used as follows:
  - a) The drift fishery was to be opened the third Monday in June or June 19, whichever was later.
  - b) From July 9 through July 15,
    - i. fishing during the first regular period was restricted to the Expanded Kenai and Expanded Kasilof sections, and additional fishing time was restricted to these areas,
    - ii. fishing during the second regular fishing period was restricted to the Kenai and Kasilof sections of the Upper Subdistrict and Drift Area One, and
  - iii. at run strengths greater than 2.3 million, 1 additional fishing period could be allowed in the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Gillnet Area One.
  - c) From July 16 through July 31,
    - i. at run strengths less than 2.3 million sockeye salmon to the Kenai River, fishing during 1 regular period was to be restricted to the Expanded Kenai and Expanded Kasilof Sections of the Upper Subdistrict and Drift Area One,
    - ii. at run strengths of 2.3–4.6 million sockeye salmon to the Kenai River, fishing during 1 regular 12-hour fishing period per week was to be restricted to either or both the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict or Drift Area One, and
  - iii. at run strengths greater than 4.6 million, there was to be no mandatory restrictions during regular fishing periods.
  - d) From August 16 until closed by emergency order, Drift Gillnet Areas Three and Four were to be open for fishing during regular fishing periods.
  - e) From August 11 through August 15, there were no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery was closed under 5 AAC 21.301(b)(2)(C)(iii), regular fishing periods would be restricted to Drift Gillnet Areas Three and Four.
- 5) The *Little Susitna River Coho Management Plan* (5 AAC 60.170) was repealed during the 2011 BOF.

- 1) The third Saturday in August, from 6:00 AM to 6:00 PM, there was a youth-only fishery at the Eklunta Tailrace. The area open to fishing from the confluence with the Knik River upstream to the pedestrian bridge.
- 2) For Jim Creek, waters open to fishing were redefined to include all waters of Jim Creek downstream to the Knik River and continuing downstream on the Knik River to within 100 yards of the Knik River confluence with Bodenburg Creek. In these waters:
  - a) Sport fishing was closed on Mondays and Tuesdays from the second Saturday in August through December 31.
  - b) A person who took a bag limit of salmon could not fish for any species of fish in waters open to salmon fishing on that same day.
  - c) Leaf Lake and Mud Lake were added to the list of waters closed year-round to salmon fishing.

#### 2017

- 1) Fishing time was increased on the lower sections of Fish, Cottonwood, and Wasilla Creeks that are open to sport fishing for salmon. Fishing was be allowed 5:00 AM–10:00 PM on these weekend-only fisheries, including the youth-only fishery at Fish Creek.
- 2) Fishing time was reduced at Jim Creek to help conserve and protect coho salmon. Beginning August 1 each season, the fishery was closed on Mondays and Tuesdays. Also beginning August 1, fishing was only allowed 5:00 AM-10:00 PM.

#### 2020

- 1) The Central District Drift Gillnet Fishery Management Plan was amended during the 2020 BOF meeting to increase passage of salmon into the Northern District and eliminate the option for a District-wide opening during the July 16 through July 31 period and replaced District-wide openings from August 1 through August 15 with more restricted fishing opportunities as follows (quote):
  - e.) From August 1 through August 15,
    - (1) fishing during both regular 12-hour fishing periods per week will be restricted to one or more of the following:
      - (A) Expanded Kenai Section;
      - (B) Expanded Kasilof Section;
      - (C) Anchor Point Section;
      - (D) Drift Gillnet Area 1;

- (2) additional fishing periods are allowed in one or more of the following:
  - (A) Expanded Kenai Section;
  - (B) Expanded Kasilof Section;
  - (C) Anchor Point Section
- f.) From August 16 until closed by emergency order, Drift Gillnet Areas 3 and 4 are open for fishing during regular fishing periods.
- 2) Sport fishing for salmon was closed at Threemile Creek and Threemile/Takhallah Lake.
- 3) Tyonek Subsistence fishery allowed the taking of other salmon in place of allowed Chinook salmon harvest (5 AAC 01.595 (3)).
- 4) Additional fishing time allowed in the Yentna subsistence fishery (5 AAC 01.593) adding Tuesdays and Thursdays from 4:00 AM to 8:00 PM.
- 5) Fishing for other species was allowed in Unit 2 of the Susitna Drainage during Chinook salmon season (5 AAC 61.114).

The BOF adopted a proposal to establish a bag limit of 10 per day, 10 in possession on northern pike in Susitna–West Cook Inlet Area.

## 1997

- 1) Sport fishing for northern pike using 5 lines was allowed in specified lakes of the Susitna—West Cook Inlet Area provided the following was observed: hooks are single hooks with a gap between the point and shank no smaller than three-quarters inch, the lines are closely attended, and all species of fish other than northern pike are immediately released. Specified lakes include Alexander Lake, Sucker Lake, Trapper Lake, Flathorn Lake, Whiskey Lake, Hewitt Lake, Donkey Lake, Three Mile Lake (Beluga area), Neil Lake, Kroto Lake, and lakes of the Nancy Lake Recreation Area, excluding Nancy and Big No Luck Lake.
- 2) The 10-fish bag and possession limits on northern pike in the Susitna-West Cook Inlet Area were repealed.

#### 1998

- 1) A slot limit was established for northern pike in Alexander and Trapper lakes. No bag and possession limits were in effect for northern pike less than 22 inches in length. Retention of northern pike between 22 inches and 30 inches in length was not allowed. The bag and possession limits for northern pike 30 inches or greater in length were 1 per day and 1 in possession. Additionally, the action taken for Alexander and Trapper lakes reduced the number of lines allowed when fishing through the ice for northern pike from 5 lines to 2 lines, and prohibited the use of spears and bow and arrows for taking of northern pike.
- 2) The use of bow and arrow was allowed for taking northern pike in NCI waters.
- 3) The three-quarter-inch single-hook size restriction was eliminated when fishing through the ice on select northern Cook Inlet lakes where 5 lines were allowed.

#### 2002

The use of 5 lines while ice fishing for northern pike apply to 7 additional lakes in Northern Cook Inlet: Trapper Lake, Big No Luck Lake, Figure Eight Lake, Cabin Lake, Lower Vern Lake, Upper Vern Lake and Lockwood Lake. On Trapper Lake, there is no longer a "slot limit" for northern pike; bait, multiple hooks, spears, and bow and arrow gear are now allowed. For the purposes of sport fishing, legal bow and arrow gear includes crossbows. When fishing through the ice for northern pike, anglers may use 2 hooks on a single line, provided that both hooks are attached to 1 single piece of bait.

The board met out-of-cycle in April 2009: the slot limit regulation on Alexander Lake was replaced with a size limit regulation. Under the new regulation, all northern pike less than 27 inches may be harvested without a bag or possession limit, whereas only 1 northern pike larger than 27 inches may be retained per day and in possession.

#### 2011

- 1) The BOF met in February 2011 and repealed the size limit for northern pike on Alexander Lake; no bag, possession, or size limit was imposed year round. Bow-and-arrow and spears to take northern pike were allowed as in other areas of NCI.
- 2) Anglers were allowed to fish for northern pike through the ice on Big and Nancy Lakes under the following specific guidelines:
  - a) Five lines are allowed from November 1 to March 15.
  - b) Fishing is only allowed 8:00 AM-5:00 PM. Current regulations for other species within these lakes did not change and anglers fishing for other species may fish outside hours designated for northern pike.
  - c) Hook gap must be at least three-quarters inch from point to shank.
  - d) Two single hooks are allowed per line so long as both hooks are attached to the same piece of bait.
  - e) A whole, legally recognized bait fish such as a herring or smelt must be used if fishing with bait.
  - f) Bait must be suspended above the bottom of the lake.
  - g) All lines must be closely attended.
  - h) All fish except northern pike must be immediately released unharmed.
- 3) In the Susitna River drainage, including all westside tributaries and waters of the eastside Susitna River north of Willow Creek, and in all West Cook Inlet area waters, northern pike were not allowed to be released back into the water alive. Further, anglers were allowed to choose to either discard dead northern pike in a responsible manner or harvest their catch.

2012–2019 No changes affecting northern pike fisheries.

#### 2020

- 1) The BOF met in February and added the following lakes to the use of 5 lines when ice fishing for northern pike: Anderson Lake, Figure Eight Lake, Flathorn Lake, Memory Lake, all Nancy Lake drainage lakes (except Nancy Lake), Prator Lake, and Stephan Lake.
- 2) Northern pike caught may not be released back into the water alive in the Knik Arm drainage area.

2021-2023 No changes affecting northern pike fisheries.

Appendix B5.–Rainbow trout regulatory history for Northern Cook Inlet Management Area waters, 1977–2023.

#### 1977

- 1) Rainbow trout daily bag and possession limits are 10.
- 2) Talachulitna River became Alaska's first catch-and-release rainbow trout fishery. Only unbaited, single-hook lures are allowed.

#### 1982

Beginning in 1982, the daily bag and possession limits dropped to 5 rainbow trout of which only 2 could be 20 inches or more in length.

#### 1983

The daily bag and possession limits were further reduced to allow 5 fish of which only 1 could be 20 inches or more in length.

### 1985

In Lake Creek (Yentna River) daily bag and possession limits were reduced to 2 and upstream of a marker 2 miles upstream of the mouth, only artificial lures were allowed.

#### 1986

During the fall of 1986, the BOF officially adopted the Cook Inlet and Copper River Rainbow/Steelhead Trout Management Policy. The BOF used this policy from 1986 to 1996 to implement regulations for rainbow trout within the NCIMA.

### 1987

- 1) In the flowing waters of the Susitna River, Matanuska River, and West Cook Inlet drainages, only unbaited, artificial lures are allowed September 1 through December 31.
- 2) In the flowing waters of the Susitna River, Matanuska River, and West Cook Inlet daily bag and possession limits were reduced to 2 per day only 1 over 20 inches.
- 3) Anglers are required to record harvest of rainbow trout over 20 inches on harvest record card (back of license). Yearly limit of 2 rainbow trout over 20 inches.
- 4) Beginning in 1987, a major portion of the Eastside Susitna Management Unit was managed for trophy-size trout (trout over 20 inches). This fishery encompasses all drainages of the Susitna River from the junction of the Susitna and Talkeetna rivers upstream to Devils Canyon. Only 1 trout 20 inches or more in length is allowed daily with a 2 trout over 20 inches seasonal limit. Trout less than 20 inches must be released immediately. An unbaited, single-hook lure requirement complements this strategy.

### 1989

1) Beginning in 1989, catch-and-release was initiated in the Lake Creek drainage one-quarter mile upstream of Bulchitna Lake, the Deshka River upstream of the confluence of Moose and Kroto Creeks (The Forks), and the Fish Creek drainage located within the Talkeetna River drainage. Only unbaited, single-hook lures are allowed in these waters.

2) Long (Kepler–Bradley), X, and Wishbone lakes designated catch-and-release only; unbaited, single hook, artificial lures only.

## 1991

- 1) In Lake Creek, only unbaited, artificial lures may be used August 15 through December 31 from an ADF&G marker 100 yards upstream of the mouth to an ADF&G marker one-quarter mile upstream of Bulchitna Lake.
- 2) The Talachulitna River catch-and-release area was extended to within three-quarter miles of the confluence of the Talachulitna River with the Skwentna River.

### 1993

- 1) In Big Lake, the rainbow trout bag limit was reduced to 2 daily and in possession.
- 2) In the upper Cook Inlet area, only 1 rainbow trout per day and 2 per season may be over 20 inches in length.
- 3) Long, X, and Wishbone lakes are closed to sport fishing from November 1 through April 30.
- 4) The North Fork of the Kashwitna River was established as a special management area for rainbow trout. Only single-hook, unbaited, artificial lures may be used in the North Fork of the Kashwitna River, and rainbow trout may not be possessed or retained; all rainbow trout caught must be released immediately.
- 5) Only unbaited, artificial lures may be used in all flowing waters of the Susitna–West Cook Inlet area (except when fishing for burbot when using legal gear for burbot) from September 1 through May 15, except in areas in which special regulations are in effect.
- 6) In the Lake Creek drainage, rainbow trout may not be possessed or retained in all flowing waters from August 15 through May 15, upstream from an ADF&G marker located approximately 100 yards upstream from its confluence with the Yentna River to an ADF&G marker located approximately one-quarter mile upstream from Bulchitna Lake. Only single-hook, unbaited, artificial lures may be used in this area during this time period. The Lake Creek drainage upstream from the Bulchitna Lake marker continues to be managed as a catch-and-release area for rainbow trout.

## 1995

Only unbaited artificial lures may be used in all flowing waters of the Susitna River drainage from September 1 through July 15.

#### 1996

In November 1996 the BOF adopted the Criteria for Establishing Special Management for Trout, 5 ACC 75.013, to replace the Cook Inlet and Copper River Rainbow/Steelhead Trout Management Policy for use in instituting regulations. Bag and possession limits under this concept are 2 trout, of which only 1 may be 20 inches or more in length and also requires the use of unbaited artificial lures in all flowing waters from September 1 through May 15.

- 1) Rainbow trout may not be possessed or retained and only unbaited, single-hook, artificial lures may be used in all waters of the Prairie Creek drainage and within one-quarter mile of its confluence with the Talkeetna River.
- 2) Rainbow trout, Dolly Varden, whitefish, and Arctic grayling may not be possessed or retained in all waters of the Alexander Creek drainage and within one-quarter mile of its confluence with the Susitna River.
- 3) The retention of rainbow trout in the Willow Creek drainage and in all waters within one-half mile radius of its confluence with the Susitna River is prohibited. All rainbow trout caught in the Willow Creek drainage and within a one-half mile radius of its confluence with the Susitna River must be immediately released.
- 4) The retention of rainbow trout is prohibited in Montana Creek drainage and all waters within a one-half mile radius of its confluence with the Susitna River.
- 5) The bag and possession limits for rainbow trout in all flowing waters and nonstocked lakes of the Susitna West-Cook Inlet Area open to the retention of rainbow trout are 2 rainbow trout of which 1 may be over 20 inches in length, and the bag and possession limits in stocked lakes are 5 rainbow trout of which 1 may be over 20 inches in length. Stocked lakes are as follows: Barley, Bear Paw, Bench, Benka, Beverly, Big No Luck, Upper and Lower Bonnie, Bruce, B–J, Canoe, Carpenter, Christiansen, Coyote, Crystal, Dawn, Diamond, Echo, Farmer, Finger, Lalen, Little Lonely, Little No Luck, Loberg (Junction), Long (Glenn Highway MP 86), Loon, Lorraine, Lucille, Lynne, Marion, Matanuska, Meirs, Memory, Morvro, North Friend, Prator, Ravine, Reed, Rocky, Ruby, Seventeenmile, Seymour, Slipper, South Friend, South Rolly, Tigger, Twin Island, Vera, Victor, Visnaw, Walby, Weiner, West Sunshine, Willow, Wolf, and Y.
- 6) Only unbaited, single-hook, artificial lures may be used in all flowing waters of the Alexander Creek drainage upstream of an ADF&G regulatory marker located 400 yards upstream of the confluence of Trail Creek.
- 7) Unbaited, single-hook, artificial lures are required year-round upstream of the Parks Highway in Rabideux Creek, Montana Creek, Goose Creek, Caswell Creek, Kashwitna River, Grays Creek, Little Willow Creek, Sheep Creek, Willow Creek, and Little Susitna River, and upstream of a department regulatory marker in Birch Creek drainage, Sunshine Creek drainage, and upstream of the Petersville Road in Trapper Creek.
- 8) Only unbaited, single-hook, artificial lures may be used from September 1 through May 31 in all waters of the drainages described above (number 7 above) and in all waters within a one-half mile radius of their confluence with the Susitna River or the mouth of the Little Susitna River.

- 9) Unbaited, single-hook, artificial lures are required year-round in the Willow Creek drainage upstream of an ADF&G marker located one-quarter mile upstream from its confluence with the Susitna River and in all waters of the Willow Creek drainage and within a one-half mile radius of its confluence with the Susitna River from September 1 through May 31.
- 10) Only unbaited, single-hook, artificial lures may be used year-round in Montana Creek upstream of the Parks Highway. Only unbaited, single-hook, artificial lures may be used in Montana Creek downstream of the Parks Highway and in all waters within a one-half mile radius of its confluence with the Susitna River from September 1 through May 31.

### 1999

- 1) Willow Creek went from no retention of rainbow trout to allowing the retention of 1 rainbow trout under 16 inches in length per day and in possession upstream of the Parks Highway bridge. The single-hook, unbaited, artificial lure provision for this area remains in effect. Downstream of the Parks Highway bridge, rainbow trout may still not be possessed or retained.
- 2) Anglers will be allowed to retain rainbow trout and use bait when fishing on the Willow Creek drainage lakes. The bag and possession limits in Shirley, Long, and Rainbow lakes are 2 per day and 2 in possession with only 1 over 20 inches in length. The bag and possession limits in Willow and Crystal lakes, which are stocked annually, are 5 per day and 5 in possession with only 1 over 20 inches in length. The seasonal limit of 2 rainbow trout greater than 20 inches applies to these and all other Cook Inlet waters.
- 3) Anglers will not be allowed to harvest rainbow trout from Canyon Creek (Skwentna River drainage). Additionally, only single-hook, unbaited, artificial lures may be used in Canyon Creek year-round.
- 4) Anglers will not be allowed to retain rainbow trout in flowing waters of West Cook Inlet and the Susitna River drainage from April 15 to June 14. This regulation applies to all flowing waters in these areas, including Willow Creek. This regulation provides for catchand-release fishing for rainbow trout during this time period.
- 5) In Big Lake (Houston area) only unbaited, single hook, artificial lures may be used from November 1 through April 30.
- 6) On the Little Susitna River, anglers will be allowed to use treble hooks year-round downstream of the Parks Highway Bridge. Existing bait restrictions were modified to allow the use of bait during the month of September, aimed at salmon with small effect on rainbow trout fishing.

In 2000 and 2001 no changes were made affecting rainbow trout fisheries.

The following regulations affecting rainbow trout were adopted by the BOF during the February 2002 meeting:

- 1) Beads are allowed fixed on line within 2 inches of fly, lure, or hook.
- 2) The single-hook regulation was clarified to mean 1 single hook.
- 3) In the East Fork of Chulitna, Theodore, and Lewis rivers, only 1 single-hook, unbaited artificial lure may be used January 1 through July 13. This regulation was made in conjunction with allowing a hook-and-release fishery for Chinook salmon.

At this time the majority of Cook Inlet rainbow trout fisheries are managed under a seasonal limit of 2 rainbow trout over 20 inches. To assure compliance with this regulation, anglers must, immediately upon harvesting a trout over 20 inches, record that harvest on the back of their license or on a harvest record.

In 2003 and 2004 no changes were made affecting rainbow trout fisheries.

#### 2005

In January 2005, the BOF increased the annual limit for rainbow trout caught in Northern Cook Inlet stocked lakes from 2 to 10 fish.

In 2006–2023 there were no changes affecting rainbow trout fisheries.

# APPENDIX C: MANAGEMENT PLANS AND POLICIES THAT IMPACT NORTHERN COOK INLET MANAGEMENT AREA FISHERIES

Appendix C1.—Management plans and policies that impact Northern Cook Inlet management area fisheries.

# 5 AAC 21.363. UPPER COOK INLET SALMON MANAGEMENT PLAN (UCISMP)

UCISMP provides long-term direction to the Alaska Board of Fisheries for allocation and conservation of fisheries involving Upper Cook Inlet (UCI) salmon stocks. The plan defines UCI salmon stocks as those that move through the Northern and Central Districts and spawn in waters draining into those districts. Various "step down" management plans relate to the UCISMP and provide specific direction to fishery managers regarding user groups, time, area, or species.

The UCISMP established the following provisions for the management and conservation of UCI salmon stocks:

- 1) Provide for a subsistence priority.
- 2) Harvest of UCI salmon will be governed by specific and comprehensive management plans.
- 3) In adopting these plans, the following will be considered: need for subsistence, protection of fisheries habitat, and the needs and demands of user groups.
- 4) The management plans may address the need to allocate harvestable surplus among commercial, sport, guided sport, and personal use fisheries and the need to allocate the harvestable surplus within user groups.
- 5) In the absence of a specific management plan, salmon shall be harvested in the fisheries that have historically harvested them.
- 6) In the absence of a specific management plan, the burden of conservation shall be shared among all user groups in close proportion to their respective harvest.

### 5 AAC 01.560. TYONEK SUBSISTENCE FISHERY

The Tyonek Subsistence Fishery provides subsistence fishing opportunities primarily to residents of the community of Tyonek. Fish harvested in this fishery are bound for NCIMA. Specific fishing periods occur from May 15 through October 15. The amount necessary for subsistence (ANS) for this fishery is 2,700 Chinook salmon. At the 2020 BOF meeting, the existing language was modified to allow for salmon harvest other than Chinook salmon. The holder of a Tyonek Subdistrict subsistence salmon fishing permit may take 95 Chinook salmon and 10 salmon for each additional house-hold member, with an annual limit of 70 Chinook salmon per household.

### 5 AAC 21.368. BIG RIVER SOCKEYE SALMON MANAGEMENT PLAN

The *Big River Sockeye Salmon Management Plan* authorizes a harvest of Big River salmon by set gillnets in the Kustatan Subdistrict of the Central District. Sockeye salmon is the targeted species. This fishery extends from June 1 through June 24 on Monday, Wednesday, and Friday from 7:00 AM to 7:00 PM. It is subject to emergency closure when the incidental harvest of Chinook salmon exceeds 1,000 fish. At the 2005 BOF meeting, the plan was amended to expand fishing to a portion of the Kalgin Island Subdistrict along the western shore from Light Point to the Kalgin Island Light on the southern end of the island.

# 5 ACC 21.353. CENTRAL DISTRICT DRIFT GILLNET FISHERY MANAGEMENT PLAN

The Central District Drift Gillnet Fishery Management Plan was partitioned from the Northern District Salmon Management Plan during the 2005 BOF meeting. Management of the drift gillnet fishery is dependent on the run strength of sockeye salmon to the Kenai River. The plan was modified during the 2011, 2014, and 2017 BOF meetings to include a preamble that the drift gillnet fishery was to be managed to minimize the harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The plan included the following:

- 1) The drift fishery opens the third Monday in June or June 19, whichever is later.
- 2) From July 9 through July 15,
  - i. Fishing during the first regular period and second period is restricted to the Expanded Kenai and Expanded Kasilof sections and Expanded Kasilof Section S of the Upper Subdistrict and Drift Gillnet Area 1.
  - ii. At run strengths greater than 2.3 million sockeye salmon, 1 additional fishing period may be allowed in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and Drift Gillnet Area One.
- 3) From July 16 through July 31,
  - i. At run strengths less than 2.3 million sockeye salmon to the Kenai River, fishing during all regular 12-hour fishing periods will be restricted to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict.
  - ii. At run strengths of 2.3–4.6 million sockeye salmon to the Kenai River, fishing during 1 regular 12-hour fishing period per week will be restricted to either or both the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict or the Anchor Point Section of the Lower Subdistrict, or to Drift Gillnet Area 1. The remaining weekly 12-hour regular fishing period will be restricted to 1 or more of the following sections: Expanded Kenai Section, Expanded Kasilof Section, or Anchor Point Section.
- iii. At run strengths greater than 4.6 million, 1 regular 12-hour fishing period per week will be restricted to the Expanded Kenai, Expanded Kasilof, and Anchor Point sections.
- 4) From August 1 to August 15, there are no mandatory area restrictions to regular fishing periods, except that if the Upper Subdistrict set gillnet fishery is closed under 5 AAC 21.301(b)(2)(C)(iii), or ADF&G determines that less than 1 percent of the season's total drift gillnet sockeye harvest has been taken per fishing period for 2 consecutive fishing periods in the drift gillnet fishery, regular fishing periods will be restricted to Drift Gillnet Areas 3 and 4.
- 5) From August 16 until closed by emergency order, Drift Gillnet Areas 3 and 4 are open for fishing during regular fishing periods.

# 5 AAC 21.358. NORTHERN DISTRICT SALMON MANAGEMENT PLAN

The Northern District Salmon Management Plan provides the following management guidelines:

- 1) Minimize the harvest of coho salmon bound for the Northern District of UCI and provides ADF&G direction for management of salmon stocks.
- Manage the Northern District commercial salmon fisheries based on abundance of sockeye salmon counted through the weirs on Larson, Chelatna, and Judd lakes or other salmon indices.
- 3) From July 20 through August 6, if the ADF&G's assessment of abundance indicates that restrictions are necessary to achieve the escapement goal, the commissioner may, by emergency order, close the commercial set gillnet fishery in the Northern District and immediately reopen a season during which the number of set gillnets that may be used is limited to the following options selected at the discretion of the commissioner, except that from July 31 through August 6, the commissioner may allow the use of 2 set gillnets in that portion of the General District south of the Susitna River.
- 4) Manage the Northern District commercial salmon fisheries to minimize the incidental take of coho salmon stocks bound for the Northern District.
- 5) Personal use fishing with a set gillnet is prohibited in the Northern District.
- 6) Directs ADF&G to conduct habitat assessments to determine loss of riparian habitat by noncommercial fishermen.

#### 5 AAC 21.354. COOK INLET PINK SALMON MANAGEMENT PLAN

The Cook Inlet Pink Salmon Mangement Plan adopted in 2002 and amended in 2005, 2011, and 2020, provides for even year pink salmon returns to be managed primarily for commercial uses while minimizing the harvest of Northern District and Kenai River coho salmon stocks. A commercial pink salmon fishery is authorized if the sockeye salmon escapement goals in the Kenai and Kasilof Rivers are being achieved and coho salmon run strength is sufficient to withstand additional harvest.

The first period will occur only if during the regular fishing periods from August 6 through August 10, the daily harvest of pink salmon exceeds 25,000 fish or the cumulative harvest is 50,000 or more pink salmon. The second pink salmon commercial fishing period will occur only if 25,000 or more pink salmon and no more than 2,500 coho salmon are harvested during the first pink salmon commercial fishing period.

### 5 AAC 21.366. NORTHERN DISTRICT KING SALMON MANAGEMENT PLAN

The *Northern District King Salmon Management Plan* was adopted in 1985 and amended in 2005, 2008, and 2011 by the BOF. This plan provides for the management of the commercial harvest of Chinook salmon in the Northern District as follows.

- 1) The season runs from the first Monday on or after May 25 through June 24 (4–5 periods depending on the calendar year).
- 2) Fishing periods were extended from 6 hours to 12 hours (7:00 AM to 7:00 PM) in 2005; periods occur on Mondays.
- 3) Harvest is capped at 12,500 Chinook salmon.
- 4) Set gillnets may not exceed 35 fathoms in length and 6 inches in mesh size.
- 5) No Commercial Fisheries Entry Commission (CFEC) permit holder may operate more than 1 set gillnet at a time.
- 6) No net shall be set within 1,200 feet of another.
- 7) No net shall be placed seaward of another.
- 8) From May 25 through June 24, the area from 1 mile south of the Theodore River to the Susitna River is open the second regular Monday only.
- 9) If the Theodore, Lewis, or Ivan River is closed to sport fishing, the area 1 mile south of the Theodore River to the Susitna River will be closed to commercial Chinook salmon fishing for the remainder of the season by emergency order.
- 10) If the Chinook salmon sport fishery on the Deshka River as described in 5 AAC 61 is
  - a) Conducted as a no bait fishery, the commissioner shall, by emergency order, reduce the time allowed per commercial set gillnet fishing to no more than 9 hours in duration or from 7:00 AM until 4:00 PM.
  - b) Conducted as a catch and release fishery, the commissioner shall, by emergency order, reduce the time allowed per fishing period provided for in this section to no more than 6 hours in duration, or from 7:00 AM, until 1:00 PM.
  - c) Closed, the commissioner shall close, by emergency order, the commercial king salmon fishery throughout the Northern District.
- 11) If the Chuitna River is closed to sport fishing, the area from a point at the wood chip dock (located about 4.5 miles south of the Chuitna River) to the Susitna River will be closed to commercial Chinook salmon fishing by emergency order for the remainder of the season.
- 12) If the in season Deshka River run projection is below the sustainable escapement goal, the commissioner may, by emergency order, close the commercial salmon set gillnet fishery throughout the Northern District.

Note that although not directly part of this plan, the gear restriction (5 AAC 21.331[d][2]) of 2 nets from August 1 to August 10 was repealed during the January 2005 BOF meeting.

# 5 AAC 21.366. SUSITNA RIVER AND LITTLE SUSITNA RIVER KING SALMON MANAGEMENT

The Susitna River and Little Susitna River King Salmon Management Plan was adopted in 2020 by the BOF. This plan describes actions that may be taken by ADF&G to better inform stakeholders of management actions on northern Cook Inlet Chinook salmon sport fisheries. ADF&G (the department) shall manage the Susitna River drainage Chinook salmon stocks to achieve Chinook salmon escapement goals by the management measures outlined in this plan.

- 1) The department shall manage for an optimal escapement goal of 16,000–22,000 Chinook salmon on the Yentna River stock.
- 2) The department will release the annual outlook and management strategy, including any preseason emergency orders, for the Susitna River Chinook salmon stocks including the Deshka, Yentna, Talkeetna, and Eastside and Little Susitna River stocks to the extent practical by January 1, during non-board-cycle years for Upper Cook Inlet Finfish.
- 3) If Chinook salmon escapement goals have been achieved for a stock in the previous 1 to 3 years, and harvest is not projected to drop escapement below the escapement goal, sport fisheries shall be open under general regulation.
- 4) If Chinook salmon escapement is projected to be near the lower bound of the escapement goal for any salmon stock or if harvest is expected to drop the projection of the escapement below the lower bound of the goal, Chinook salmon sport fisheries may open under catchand-release or other restrictive actions to reduce harvest yet continue to provide opportunity, if associated sport mortality is not expected to reduce the escapement below the lower bound of the escapement goal.
- 5) If the commissioner determines additional conservation to achieve the escapement goals, the commissioner may, by emergency order, enact the following management measures:
  - a) Deshka River: annual limit reduction; bait prohibition; harvest restricted to Saturdays—Mondays implementing catch-and-release with a single hook only on other days.
  - b) Yentna River drainage: annual limit reduction; harvest restricted to Fridays—Mondays implementing catch-and-release with a single hook only on other days.
  - c) Talkeetna River drainage: annual limit reduction; harvest restricted to Saturdays—Mondays catch-and-release with a single hook on other days.
  - d) Eastside Susitna River drainages: annual limit reduction; close one or more weekends of fishing.
  - e) Little Susitna River: annual limit reduction; harvest restricted to Saturdays— Mondays, or Fridays—Mondays, catch-and-release with a single hook only on other days.
- 6) If Chinook salmon escapement is projected to be below the applicable escapement goal for that stock, Chinook salmon sport fishing will be closed.

# 5 AAC 21.370. PACKERS CREEK SOCKEYE SALMON MANAGEMENT PLAN

The *Packers Creek Sockeye Salmon Management Plan* directs ADF&G not to base commercial fishing time in the Kalgin Island Subdistrict on enhanced run strength of Packers Creek sockeye salmon. The plan limits extra fishing time to no more than 1 additional fishing period per week.

# 5 AAC 75.210. SPECIAL MANAGEMENT AREAS AND LIBERAL HARVEST OPPORTUNITIES FOR TROUT

The Special Management Areas and Liberal Harvest Opportunities for Trout was adopted by the BOF in November 1996 from the Cook Inlet and Copper River Basin Rainbow—Steelhead Trout Management Policy. These criteria provide future BOF, ADF&G managers, and the sport fishing public with the following:

- 1) management policies and implementation directives for Cook Inlet rainbow and steelhead trout
- 2) a systematic approach to developing sport fishing regulations that includes a process for rational selection of waters for such special management as catch-and-release, trophy areas, and high yield fisheries.

The Statewide Management Standards for Wild Trout (5 AAC 75.220), effective November 2003, directs ADF&G to manage wild stocks of rainbow trout for optimal sustained yield, based on management objectives that maximize benefits of the fisheries while maintaining genetic diversity, biologically desirable size composition, and abundance levels of wild stock that do not require stocking for enhancement or supplementation.

Due to concerns over lack of stock status information and the potential for increased angler effort on wild stocks, the potential for loss of fishing opportunity, and the potential for over-exploitation, the BOF intends to manage wild rainbow trout stocks conservatively. Conservative management for areas of the state, other than Southeast Alaska, means bag and possession limits of 2 fish, of which only 1 may be 20 inches or greater in length with an annual limit of 2 fish 20 inches or greater in length. Note that no changes to NCI wild rainbow trout regulations were made during the 2005 BOF meeting with respect to statewide management standards because regulations within the NCIMA already complied with these standards.

# 5 AAC 77.540. UPPER COOK INLET PERSONAL USE SALMON FISHERY MANAGEMENT PLAN

The *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* establishes time, area, methods and means for taking salmon for personal use. This plan first went into effect during the 1996 season. Salmon harvest opportunity was established to replace the harvest opportunity previously provided through the *Upper Cook Inlet Subsistence Salmon Management Plan*, which was repealed by the BOF in 1995. The plan provides for personal use dip net fisheries in the Kenai and Kasilof Rivers, Fish Creek, Beluga River, and the Susitna River. Limited personal use gillnet fishing opportunity is provided near the terminus of the Kasilof River. The personal use fishery at Fish Creek may open by emergency order from July 10 through July 31 if ADF&G projects the escapement of sockeye salmon will be more than 50,000 fish. The Beluga River fishery is for persons 60 years or older, and proxies are not authorized. This fishery is from July 10 to August 31. The Susitna River fishery by dip net is open July 10–31 Wednesdays and Saturdays from 6:00 AM to 11:00 PM.

# 5 AAC 01.593. UPPER YENTNA RIVER SUBSISTENCE SALMON FISHERY

The Upper Yentna River subsistence salmon fishery establishes a subsistence fish wheel fishery for salmon other than Chinook salmon in the Yentna River downstream of its confluence with the Skwentna River to the confluence of Martin Creek. This fishery was implemented as a personal use fishery during the 1996 and 1997 seasons. State Supreme Court and BOF action changed it to a subsistence fishery beginning in 1998. A harvest quota of 2,500 salmon, other than Chinook salmon, was removed in 2011 and replaced with bag and possession limits of 25 salmon for the head of a household and 10 salmon for each dependent of the permit holder. The ANS for this fishery is 400–700 salmon other than Chinook salmon. Permit holders are allowed 5 Chinook salmon for the head of household and 2 Chinook salmon for each dependent. The season is from 1 June to 30 June and 15 July to 7 August. Fishing is allowed Mondays through Fridays from 4:00 AM to 8:00 PM.

# 5 AAC 60.175. INVASIVE NORTHERN PIKE MANAGEMENT PLAN FOR THE KNIK ARM DRAINAGE AREA AND THE SUSITNA RIVER DRAINAGE AREA 5AAC 61.175.

ADF&G shall manage invasive northern pike in the waters of the Knik Arm Drainage Area to minimize the impacts on indigenous fish stocks and recreational fisheries. Waters containing invasive northern pike will be managed so that there is a reasonable expectation of high catch rates and harvesting daily bag limits. The commissioner may, by emergency order, change bag and possession limits and alter method and means for northern pike to aid in control of invasive northern pike.

#### OTHER SPECIES NOT COVERED BY MANAGEMENT PLANS

Fisheries for other species not covered by the above management plans or policies are managed to assure sustained yield of the targeted fish stock while assuring the continued, and where possible, the expanded opportunity to participate in the fishery.

#### SUSITNA BASIN RECREATION RIVERS ACT

In the spring of 1988, the Alaska legislature passed the *Recreation Rivers Act* (Sec. 41.23.400) and assigned oversight responsibilities related to this act to the Alaska Department of Natural Resources (DNR). This act established 6 recreation rivers: Little Susitna River, Deshka River (including Moose and Kroto Creeks), Talkeetna River, Lake Creek, Talachulitna River, and Alexander Creek. The legislation was enacted to ensure that all state lands and waters within the 6 river corridors are maintained and enhanced for recreation and wildlife purposes. A 2-year planning process was completed, which included input from affected individuals, groups, agencies, and officials throughout the area. The plan (DNR 1991) was adopted as DNR policy in the spring of 1991 following legislative review of the document. Regulations associated with the plan were available for public comment through January 7, 1994. Regulations went into effect for the 1996 season, but no funds have been allocated for enforcement.

# APPENDIX D: PRESENCE OF NORTHERN PIKE IN WATERS OF THE NORTHERN COOK INLET MANAGEMENT AREA

Appendix D1.—Confirmed and suspected presence of northern pike in waters of the Northern Cook Inlet Management Area

Primary classification	Secondary classification	Site	Presence documented	Presence suspected
Susitna Basin Lakes	Alexander Creek	Alexander Lake	X	_
Susitna Basin Lakes	Alexander Creek	Sucker Lake	X	_
Susitna Basin Lakes	Alexander Creek	Trail Lake	X	_
Susitna Basin Lakes	Alexander Creek	Rabbit Lake	X	_
Susitna Basin Lakes	Lower Susitna	Flathorn Lake	X	_
Susitna Basin Lakes	Lower Susitna	Figure 8 Lake	X	_
Susitna Basin Lakes	Lower Susitna	Arrowhead Lake	X	_
Susitna Basin Lakes	Lower Susitna	Beaver Lake	X	_
Susitna Basin Lakes	Mid Susitna	Witsoe Lake	X	_
Susitna Basin Lakes	Mid Susitna	Whitsol Lake	X	_
Susitna Basin Lakes	Mid Susitna	Lockwood Lake	X	_
Susitna Basin Lakes	Mid Susitna	Lady Slipper Lake	X	_
Susitna Basin Lakes	Mid Susitna	Unnamed	X	_
Susitna Basin Lakes	Mid Susitna	Unnamed	X	_
Susitna Basin Lakes	Mid Susitna	Unnamed	X	_
Susitna Basin Lakes	Mid Susitna	Vern Lake	X	_
Susitna Basin Lakes	Mid Susitna	Ding Dong (Upper Vern)	X	_
Susitna Basin Lakes	Mid Susitna	Yensus Lake	_	X
Susitna Basin Lakes	Yentna River	Whiskey Lake	X	_
Susitna Basin Lakes	Yentna River	Bulchitna Lake	X	_
Susitna Basin Lakes	Yentna River	Fish Creek Lake 1	X	_
Susitna Basin Lakes	Yentna River	Fish Creek Lake 2	X	_
Susitna Basin Lakes	Yentna River	Fish Creek Lake 3	X	_
Susitna Basin Lakes	Yentna River	Fish Creek Lake 4	X	_
Susitna Basin Lakes	Yentna River	Donkey Creek	X	_
Susitna Basin Lakes	Yentna River	Hewitt Lake	X	_
Susitna Basin Lakes	Yentna River	No Name (Big Bend)	X	_
Susitna Basin Lakes	Yentna River	Chelatna Lake	X	_
Susitna Basin Lakes	Yentna River	Cabin Lake (Big Bend)	X	_
Susitna Basin Lakes	Yentna River	Pear Lake (Upper Skwenta)	X	
Susitna Basin Lakes	Yentna River	Stickleback Lake	X	
Susitna Basin Lakes	Skwentna River	Eight Mile Lake	X	_
Susitna Basin Lakes	Skwentna River	Seven Mile Lake	X	
Susitna Basin Lakes	Skwentna River	No Name (Herk Strip)	X	
Susitna Basin Lakes	Skwentna River	One Stone Lake	X	
Susitna Basin Lakes	Skwentna River	Shell Lake	X	_
Susitna Basin Lakes	Deshka River	Parker Lake	X	_
Susitna Basin Lakes	Deshka River		X	_
Susitna Basin Lakes Susitna Basin Lakes	Deshka River	Trapper Lake No Name Lake	X	_
Susitna Basin Lakes Susitna Basin Lakes	Deshka River	Amber Lake	X X	_
				_
Susitna Basin Lakes	Deshka River	Rocky Lake	X	_
Susitna Basin Lakes	Deshka River	Neil Lake	X	_
Susitna Basin Lakes	Deshka River	Kroto Lake	X	_
Susitna Basin Lakes	Deshka River	No Name 1mi SW Parker	X	

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			Presence	Presence
Primary classification	Secondary classification	Site	documented	suspected
Susitna Basin Lakes	Deshka River	No Name 2 mi SW Parker	X	_
Susitna Basin Lakes	Deshka River	Schneider Lake	X	_
Susitna Basin Lakes	Upper Susitna	Kashwitna Lake	_	X
Susitna Basin Lakes	Upper Susitna	Caswell Lake	_	X
Susitna Basin Lakes	Upper Susitna	Fish Lake (Birch Ck)	X	_
Susitna Basin Lakes	Upper Susitna	Sawmill Lake	_	X
Susitna Basin Lakes	Upper Susitna	Swan Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Nancy Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Twin Shirt Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Redshirt Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Cow Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Little Chicken Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Big No Luck Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Little No Luck Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	South Rolly Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	North Rolly Lake	_	X
Susitna Basin Lakes	Nancy Lake Area	Denaina Lake (Tanaina)	X	_
Susitna Basin Lakes	Nancy Lake Area	Milo Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Frazer Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Little Frazer Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	James Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Owl Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Char Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Ardaw Lake (Milo Lake #3)	X	_
Susitna Basin Lakes	Nancy Lake Area	Phoebe Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Chicken Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Echo Pond #1	X	_
Susitna Basin Lakes	Nancy Lake Area	Echo Pond #2	X	_
Susitna Basin Lakes	Nancy Lake Area	Echo Pond #3	X	_
Susitna Basin Lakes	Nancy Lake Area	Candle Stick Lake	X	_
Susitna Basin Lakes	Nancy Lake Area	Bains Pond #1	X	_
Susitna Basin Lakes	Nancy Lake Area	Bains Pond #2	X	_
Susitna Basin Lakes	Nancy Lake Area	Bains Pond #3	X	_
Susitna Tributaries	_	Fish Creek (Flathorn)	X	_
Susitna Tributaries	_	Fish Creek (Kroto)	X	_
Susitna Tributaries	_	Lake Creek	X	_
Susitna Tributaries	_	Fish Lake Creek	X	_
Susitna Tributaries	_	Alexander Creek	X	_
Susitna Tributaries	_	Trappers Creek	X	_
Susitna Tributaries	_	Sucker Creek	X	_
Susitna Tributaries	_	Montana Creek	X	_
Susitna Tributaries	_	Rolly Creek	X	_
Susitna Tributaries	_	Moose Creek	X	_
Susitna Tributaries	_	Bottle Creek	X	_
		******		

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			Presence	Presence
Primary classification	Secondary classification	Site	documented	suspected
Susitna Tributaries	Yentna River	Hewitt Creek	X	_
Susitna Tributaries	Yentna River	Donkey Creek	X	_
Susitna Tributaries	_	Indian Creek (Yentna)	X	_
Susitna Tributaries	_	Indian (Chulitna)	_	X
Susitna Tributaries	_	Rabideux Creek	X	_
Susitna Tributaries	_	Fish Lake Creek	X	_
Susitna Tributaries	_	Kutna Creek (Yentna)	X	_
Susitna Tributaries	_	Shell Creek	X	_
Susitna Tributaries	_	Eightmile Creek	X	_
Susitna Tributaries	_	Caswell Creek	X	_
Susitna Tributaries	_	Witsoe Creek	X	_
Susitna Tributaries	_	Trapper (Talkeetna)	_	X
Susitna Tributaries	_	Talachulitna Creek	_	X
Susitna Tributaries	_	Johnson Creek	X	_
Susitna Tributaries	_	Otter Creek	X	_
Susitna Tributaries	_	Unnamed (Lower Su)	X	_
Susitna Tributaries	_	Sunshine Creek	_	X
Susitna Tributaries	_	Anderson Creek	X	_
Susitna Tributaries	_	Wiggle Creek	_	X
Susitna Tributaries	_	Birch Creek	_	X
Susitna Tributaries	_	Yentna River	X	_
Susitna Tributaries	_	Skwentna River	X	_
Susitna Tributaries	_	Chulitna River	_	X
Susitna Tributaries	_	Tokositna	X	_
Susitna Tributaries	_	Deshka River	X	_
Knik Arm Drainage	Big Lake Drainage	Fish Creek (Big Lake)	X	X
Knik Arm Drainage	Big Lake Drainage	Meadow Creek (Big Lake)	X	_
Knik Arm Drainage	Big Lake Drainage	Big Lake	X	_
Knik Arm Drainage	Big Lake Drainage	Little Meadow Creek	X	_
Knik Arm Drainage	Big Lake Drainage	Blodgett Lake	X	_
Knik Arm Drainage	Big Lake Drainage	West Beaver Lake	X	_
Knik Arm Drainage	Big Lake Drainage	Rainbow Lake	X	_
Knik Arm Drainage	Goose Creek Drainage	Stephan Lake	X	_
Knik Arm Drainage	Cottonwood Creek	Cottonwood Lake	_	X
Knik Arm Drainage	Cottonwood Creek	Anderson Lake	X	_
Knik Arm Drainage	Cottonwood Creek	Wasilla Lake	_	X
Knik Arm Drainage	Cottonwood Creek	Kings Lake	X	_
Knik Arm Drainage	Cottonwood Creek	Mud Lake	_	X
Knik Arm Drainage	_	Little Susitna River	X	_
Knik Arm Drainage	Little Susitna	Hourglass (Big L. Area)	X	_
Knik Arm Drainage	Little Susitna River	Horseshoe Lake (Little-Su)	X	_
Knik Arm Drainage	_	Mink Creek	_	X
Knik Arm Drainage	_	Fire Creek	_	X
Knik Arm Drainage	_	Pear Lake	_	X
Knik Arm Drainage	_	Goose Creek	X	

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D.:	Secondary	6:4-	Presence	Presence
Primary classification	classification	Site	documented	suspected
West Cook Inlet	_	Chuitna River	_	X
West Cook Inlet	_	Lewis River	X	_
West Cook Inlet	_	Chuitbuna Lake	X	_
West Cook Inlet	_	Threemile Creek	X	_
West Cook Inlet	Threemile Creek	Threemile lakes	X	_
West Cook Inlet	_	Tukallah Lake	X	_
West Cook Inlet	_	Nikolai River	_	X
West Cook Inlet	Chuitna River	Third Lake	_	X
West Cook Inlet	_	Second Lake	X	_
West Cook Inlet	Tyonek	Bunka Lake	_	X
Matanuska-Susitna Valley Lakes	_	Big Lake cut-off Lake	X	_
Matanuska-Susitna Valley Lakes	_	Crystal Lake (Willow)	X	_
Matanuska-Susitna Valley Lakes	_	Shirley Lake (Willow)	X	_
Matanuska-Susitna Valley Lakes	_	Long Lake (Willow)	X	_
Matanuska-Susitna Valley Lakes	_	Prator Lake	X	_
Matanuska-Susitna Valley Lakes	_	Memory Lake	X	_
Matanuska-Susitna Valley Lakes	_	Wallace Lake	X	_
Matanuska-Susitna Valley Lakes	_	Baptist Pond	X	_

## APPENDIX E: MATANUSKA-SUSITNA BOROUGH LAKE MANAGEMENT PLANS

Appendix E1.-Matanuska-Susitna Borough lake management plans.

,	Lake	Regulations	
Name	Characteristics	Details	Date adopted
Big Lake	Surface area: 2,495 acres	Personal watercraft prohibited on Meadow Creek	Aug 1998
	Maximum depth: 89 feet	Quiet hours:	
	Mean depth: 30 feet	11:00 PM-8:00 AM Sun-Sat	
		Ice house registration	
		No-wake zone: 150 feet from shoreline	
Blodgett Lake	Surface area: 57.6 acres	Horsepower limit: 10	Sep 1997
	Maximum depth: 29 feet	Personal watercraft prohibited	
	Mean depth: 10.7 feet	Quiet hours:	
		10:00 PM-8:00 AM Sun-Thurs	
		11:00 PM-8:00 AM Fri-Sat	
Bonnie Lake Area	Surface area: 105 acres	Electric motors only	Nov 1996
Upper Bonnie Lake	Maximum depth: 35 feet	Personal watercraft prohibited	
	Mean depth: not available		
Bonnie Lake	Surface area: 99.8 acres	Personal watercraft prohibited	
	Maximum depth: 35 feet		
	Mean depth: not available		
Ravine Lake	Surface area: 12 acres	Horsepower limit: 10	
	Maximum depth: 25 feet	Personal watercraft prohibited	
	Mean depth: 12 feet		
Carpenter Lake	Surface area: 176 acres	Personal watercraft prohibited	Jun 2006
	Maximum depth: 30 feet	10 HP limit - time share	
	Mean depth: 8.1 feet	Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
	-	No-wake zone: 100 feet from shore	

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	Lake	Regulations Regulations	
Name	Characteristics	Details	Date adopted
Caswell Lake	Surface area: 157 acres	Personal watercraft prohibited	Jun 2014
	Maximum depth: 28 feet	Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
	Mean depth: 10 feet	No-wake zone: 100 feet from shore, winter motor vehicle ban	
Christiansen Lake	Surface area: 179 acres	Personal watercraft prohibited	Sep 1999
	Maximum depth: 82 feet	15 HP limit	
	Mean depth: 22 feet	Quiet hours:	
		10:00 PM-8:00 AM, Sun-Sat	
		Special permit: To accommodate building construction, early season testing of river boats and other special uses. HP limit may be waived by special permit.	
Cottonwood Creek		Non-motorized.	1995
Cottonwood Lake	Surface area: 262 acres	Mufflers, cowlings, exhaust systems	1995
	Maximum depth: 39 feet	Quiet hours: 11:00 PM-8:00 AM Sun-Sat	
	Mean depth: 11 feet	No-wake zone: 100 feet from shoreline	
	•	Special events permits	
Crooked Lake	Surface area: 250 acres Maximum depth: 35 feet Mean depth: 14 feet	No-wake zone: 50 feet from shoreline at the public dock	Aug 1995
Crystal Lake	Surface area: 132 acres	Quiet hours:	Aug 1996
·	Maximum depth: 24 feet Mean depth: 11.7 feet	10:00 PM-8:00 AM Sun-Sat	Ü
Diamond Lake	Surface area: 139 acres	Horsepower limit: 10	Apr 1999
	Maximum depth: 23 feet	Quiet hours:	
	Mean depth: 7.6 feet	10:00 PM-8:00 AM Sun-Sat	
		Ice House Registration	
		No-wake zone: 100 feet from ordinary high water mark	
Florence Lake	Surface area: 55 acres	Quiet hours: 10:00 PM-8:00 AM Sun-Sat	Apr 2006
	Maximum depth: 41 feet	No-wake zone: 100 feet from shoreline.	
	Mean depth: 17.6 feet	Personal watercraft ban	

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	Lake	Regulations	
Name	Characteristics	Details	Date adopted
Finger Lake	Surface area: 362 acres	Mufflers, cowlings, exhaust systems	1995
	Maximum depth: 44 feet	Quiet hours: 11:00 PM-8:00 AM Sun-Sat	
	Mean depth: 15.5 feet	No-wake zone: 100 feet from shoreline	
		Special events permits	
Fish Lake	Surface area: 59 acres	Horsepower limit: 5	Aug 1997
	Maximum depth: not available		
	Mean depth: not available		
Honeybee Lake	Surface area: 58 acres	Electric Motors Only	Nov 1997
	Maximum depth: 35 feet	Quiet hours:	
	Mean depth: 13.5 feet	7:00 PM-9:00 AM Sun-Sat	
Island & Doubloon	Surface area: 85 acres	Personal watercraft prohibited	Aug 1996
Island Lake	Maximum depth: not available		
	Mean depth: not available		
Doubloon Lake	Surface area: 14 acres	Personal watercraft prohibited	
	Maximum depth: not available		
	Mean depth: not available		
Jean Lake	Surface area: 51 acres	Personal watercraft prohibited	Jan 2006
	Maximum depth: 30 feet	Electric motors only	
	Mean depth: 3-5 feet	Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
		Commercial floatplane operations are discouraged.	
John Lake	Surface area: 52 acres	Horsepower limit: 10	Aug 1996
	Maximum depth: not available	Quiet hours:	
	Mean depth: not available	10:00 PM-8:00 AM Sun-Sat	
		(electric and trolling motors allowed during quiet hours)	
Knik Lake	Surface area: 50 acres	Horsepower limit: 5	Aug 1995
	Maximum depth: 37 feet	Quiet hours:	
	Mean depth: 19 feet	10:00 PM-8:00 AM Sun-Thurs	
	-	11:00 PM-8:00 AM Fri-Sat	

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	Lake	Regulations Regulations	
Name	Characteristics	Details	Date adopted
Lake of the Woods	Maximum depth: 20-30 feet	Quiet hours: 7:00 PM-9:00 AM Sun-Sat	Apr 2010
	Mean depth: 10-12 feet	Personal watercraft ban	
		Electric motors only	
		Maintain current limited access.	
Liten Lake	Surface area: 57 acres	Motorized watercraft prohibited	Jan 2006
	Maximum depth: 10+ feet	Personal watercraft prohibited	
	Mean depth: 4-6 feet	No-wake zone: lake-wide	
		Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
		Public access to the lake is discouraged.	
		Commercial floatplane operations are discouraged.	
Little Beaver Lake	Surface area: 57 acres	Motorized watercraft prohibited	Jun 2008
	Maximum depth: 10+ feet	Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
	Mean depth: 9 feet	Maintain current limited access.	
Little Lonely Lake	Surface area: 56 acres	Personal watercraft prohibited	May 2005
•	Maximum depth: 63 feet	Horsepower limit: 10	•
	Mean depth: 20 feet	No-wake zone: lake-wide	
	•	Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
		Ice house registration	
		Commercial floatplane operations are discouraged.	
Long Lake (Houston)	Surface area: 44 acres	Personal watercraft prohibited	Nov 2001
	Maximum depth: 17 feet	Horsepower limit: 10	
	Mean depth: 8.8 feet	No-wake zone: 100 feet from ordinary high water mark	
		Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
Marilee Lake	Surface area: 33.8 acres	Horsepower limit: 5	Sep 1998
	Maximum depth: 18 feet		
	Mean depth: 7.3 feet		

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Lake		Regulations		
Name	Characteristics	Details	Date adopted	
Marion Lake	Surface area: 113 acres	Personal watercraft prohibited	Nov 2000	
	Maximum depth: 42 feet	Quiet hours:		
	Mean depth: 20.6 feet	10:00 PM-8:00 AM Sun-Sat		
		No-wake zone: 100 feet from ordinary high water mark.		
		Time share: A lake-wide no-wake speed except on Thursdays,		
		Fridays, Saturdays, and all 3-day weekends mandated by federal		
		holiday (Memorial Day, Fourth of July, and Labor Day).		
Memory Lake	Surface area: 84 acres	Horsepower limit: 10	Sep 1998	
•	Maximum depth: 20 feet	Quiet hours:	_	
	Mean depth: 7.2 feet	10:00 PM-8:00 AM Sun-Sat		
	-	Access to be day use only		
Morvoe Lake	Surface area: 87 acres	25 Horsepower limit	2007	
	Mean depth: 11 feet	Quiet hours:		
	Maximum depth: 17 feet	11:00 PM-8:00 AM Sun-Sat		
Neklasen Lake	Surface area: 72 acres	Personal watercraft prohibited	Jan 2000	
	Maximum depth: 67 feet	Quiet hours:		
	Mean depth: 16 feet	10:00 PM-8:00 AM Sun-Sat		
		No-wake zone: 100 feet from shoreline except when a waterskier		
		is leaving dock or shoreline.		
		Timeshare:		
		Lake-wide no-wake zone except Thursdays, Fridays, first and third		
		Saturdays of the month, national holidays, and three-day weekends		
		resulting from national holidays.		
Lower Neklasen Lake	Surface area: 36 acres	All motorized watercraft prohibited	Jan 2000	
	Maximum depth: unknown			
	Mean depth: less than 5 feet			
Paradise Lake	Surface area: 25 acres	Electric motors only	Apr 2007	
	Maximum depth: 20 feet	Quiet hours:		
	Mean depth: 5-10 feet	9:00 PM-9:00 AM Sun-Sat		
		Personal watercraft prohibited		

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Lake		Regulations	
Name	Characteristics	Details	Date adopted
Question Lake	Surface area: 80 acres	Horsepower limit: 5	Sep 1998
	Maximum depth: unknown	Quiet hours:	
	Mean depth: unknown	10:00 PM-8:00 AM Sun-Sat	
		Motor vehicles prohibited during winter months when lake is frozen	
Little Question Lake	Surface area: 25 acres	Non-motorized	Sep 1998
	Maximum depth: unknown	Quiet hours:	
	Mean depth: unknown	10:00 PM-8:00 AM Sun-Sat	
		Motor vehicles prohibited during winter months when lake is frozen	
Lake Five and	Surface area: unknown	Non-motorized	Sep 1998
Unnamed Lakes	Maximum depth: unknown	Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
	Mean depth: unknown	All these lakes allow for a special permit to exceed motor limits for	
		Motor vehicles prohibited during winter months when lake is frozen	
		Ice house registration	
Rainbow Lake	Surface area: 150 acres	Horsepower limit: 10	Nov 1995
	Maximum depth: 45 feet	Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
	Mean depth: 16.7 feet		
Shirley Lake	Surface area: 121 acres	Personal watercraft prohibited.	Apr 2006
	Maximum depth: 23 feet	Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
	Mean depth: 14.1 feet	No-wake zone: 100 feet from ordinary high water mark	
Stephans Lake	Surface area: 95 acres	Horsepower limit: 10 on timeshare basis.	Mar 2007
	Maximum depth: 30 feet	Personal watercraft ban	
		Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
		No-wake zone: 100 feet from shoreline	
Sunbeam Lake	Surface area: 21 acres	Electric motors only	Nov 2007
	Maximum depth: 15 feet	Personal watercraft ban	
	Mean depth 4–8 feet	Quiet hours: 10:00 PM-8:00 AM Sun- Sat	
		No-wake zone: 100 feet from shoreline	
Suncrest Lake	Surface area: 40 acres	Horsepower limit: 10 on timeshare basis.	Nov 2007
	Maximum depth: 30 feet	Personal watercraft ban	
	Mean depth 4–8 feet	Quiet hours: 10:00 PM-8:00 AM Sun-Sat	
	-	No-wake zone: 100 feet from shoreline	

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Lake		Regulations	
Name	Characteristics	Details	Date adopted
Threemile Lake	Surface area: 119 acres Maximum depth: 15 feet Mean depth: 3.3 feet	Personal watercraft prohibited. Amphibious vehicles prohibited. Horsepower limit: 10 Quiet hours: 10:00 PM-8:00 AM Sun-Sat	Nov 2002
Toad Lake	Surface area: 50 acres Maximum depth: unknown Mean depth: 10 feet	Electric motors only	Sep 1998
Twin Island Lake	Surface area: 151 acres Maximum depth: 61 feet Mean depth: 14.8 feet	Horsepower limit: 10 Quiet hours: 10:00 PM-8:00 AM Sun-Thu 11:00 PM-8:00 AM Fri-Sat Walk-in only access	Jul 1997
Walby Lake	Surface area: 54 acres Maximum depth: 18 feet Mean depth: 5.4 feet	Horsepower limit: 10 Quiet hours: 10:00 PM–8:00 AM Sun–Sat Motor vehicles prohibited during winter months when lake is frozen	Sep 1998
Wasilla Lake	Surface area: 374 Maximum depth: 48 feet Mean depth: 17 feet	Mufflers, cowlings, exhaust systems allowed Quiet hours: 11:00 PM-8:00 AM, Sun-Sat. No-wake zone: 100 feet from shoreline Special events permits	Jun 1995
West Papoose Lake	Surface area: 212 acres Maximum depth: not available Mean depth: not available	Personal watercraft prohibited Quiet hours: 11:00 PM-8:00 AM Sun-Sat No-wake zone: 100 feet from ordinary high-water mark	Aug 1996
Whiskey Lake	Surface area: 270 acres Maximum depth: 35 feet Mean depth: not available	Personal watercraft prohibited No-wake zone: 150 feet from ordinary high water mark Quiet hours: 10:00 PM-8:00 AM Sun-Sat Motorized watercraft prohibited on portions of the inlet creek and outlet (Whiskey) creek.	Aug 2004
Wolf Lake	Surface area: 62 acres Maximum depth: 17 feet Mean depth: 6.8 feet	Horsepower limit: 6 Motor vehicles prohibited during winter months when lake is frozen	Jul 1997
Wolverine Lake	Surface area: 55 acres Maximum depth: 7 feet Mean depth: 2.2 feet	Personal watercraft prohibited Quiet hours: 10:00 PM-8:00 AM Sun-Sat Electric motors only Commercial floatplane operations prohibited.	Aug 2004